

SFUND RECORDS CTR  
2160032

SEVERN  
TRENT

STL

STL Sacramento  
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West Sacramento, CA 95605

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[www.stl-inc.com](http://www.stl-inc.com)

December 20, 2004

STL SACRAMENTO PROJECT NUMBER: G4L010311  
PO/CONTRACT: W91238-04-F-0084

Dan Jablonski  
CH2M Hill Inc  
3 Hutton Centre Drive  
Suite 200  
Santa Ana, CA 92707

Dear Mr. Jablonski,

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on December 1, 2004. These samples are associated with your Omega Superfund project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,



Diana Brooks  
Project Manager



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Samples: 1, 2, 3, 4

    Sample Data Sheets

    Method Blank Reports

    Laboratory QC Reports

WATER, 410.4, Demand, Chemical Oxygen

Samples: 2, 3, 4

    Sample Data Sheets

    Method Blank Reports

    Laboratory QC Reports

## CASE NARRATIVE

### STL SACRAMENTO PROJECT NUMBER G4L010311

#### WATER, 1625 Modified, Semivolatiles by HRMS

Sample(s): 3, 4

The recovery for the internal standard for the d6-Nitrosodimethylamine (d6-NDMA), and the d5-1,2,3-Trichloropropane had recoveries below the recommended limit of 25%. This is directly due to losses during the solvent reduction steps due to the extreme volatility of these compounds.

Isotope dilution generally precludes any adverse impact to the target compound quantitation when a signal to noise of 10:1 is achieved. In all cases this criteria was met and there is no impact to the reported data.

Note: isotope dilution recovery corrects for losses during extraction, and the sample preparation procedures

There were no other anomalies associated with this project.



### STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	NA	South Carolina	87014001
California*	01119CA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA 044	USACE	NA
New Jersey*	CA005	USDA Foreign Plant	37-82605
New York*	11666	USDA Foreign Soil	S-46613

\*NELAP accredited. A more detailed parameter list is available upon request.

### QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

#### **Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):**

An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

# Sample Summary

## G4L010311

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
GX3LR 1		OC2-00-W-2-78	11/30/04 08:20 AM	12/1/04 09:15 AM
GX3LW 2		OC2-0W7-W-5-79	11/30/04 09:35 AM	12/1/04 09:15 AM
GX3L0 3		OC2-0W4B-W-0-80	11/30/04 11:30 AM	12/1/04 09:15 AM
GX3L1 4		OC2-0W4A-W-0-81	11/30/04 01:05 PM	12/1/04 09:15 AM

### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

**Chain of  
Custody Record**
**SEVERN  
TRENT**
**STL**
**Severn Trent Laboratories, Inc.**

STL-4124 (0901)

Client <b>CH2M HILL</b>			Project Manager <b>Tom Perina / Dan Jablonski</b>			Date	Chain of Custody Number <b>142799</b>																
Address <b>3 Hutton Centre Dr. Ste 200</b>			Telephone Number (Area Code)/Fax Number <b>949 307 4364</b>			Lab Number	Page <b>1</b> of <b>1</b>																
City <b>Santa Ana</b>	State <b>CA</b>	Zip Code <b>92707</b>	Site Contact <b>D. Jablonski</b>	Lab Contact <b>D. Brooks</b>	Analysis (Attach list if more space is needed)																		
Project Name and Location (State) <b>Omega Chemical, Whittier CA</b>			Carrier/Waybill Number <b>847028626878</b>																				
Contract/Purchase Order/Quote No.			Matrix		Containers & Preservatives																		
Sample I.D. No. and Description (Containers for each sample may be combined on one line)			Date	Time	AP	PPG	PPS	UNPSS	H2O	H2O2	HCl	HNO3	HBr	ZnCl2	HgO	NaOH	EDTA	NDMA	A	TCP	COD	Special Instructions/ Conditions of Receipt	
OC2-00-W-2-78			11/30/04	0820	X			Z										X					
OC2-0W7-W-5-79				0935	X			#2										X	X	X			<b>LAB QC</b>
OC2-0W4B-W-0-80				1130	X			21										X	X	X			
OC2-0W4A-W-0-81			↓	1305	X			21										X	X	X			
RECEIVED IN GOOD CONDITION: UNDER COC																							
DEC - 1 2004																							
IN <b>OK</b>																							
Possible Hazard Identification			Sample Disposal			(A fee may be assessed if samples are retained longer than 1 month)																	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input checked="" type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown			<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																				
Turn Around Time Required																			OC Requirements (Specify)				
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input checked="" type="checkbox"/> 21 Days <input type="checkbox"/> Other _____																							
1. Relinquished By <b>Tom Jablonski</b>			Date <b>11/30/04</b>	Time <b>1600</b>	1. Received By <b>FED EX</b>			Date	Time														
2. Relinquished By			Date	Time	2. Received By <b>M. J. H.</b>			Date <b>12-1-04</b>	Time <b>1130</b>														
3. Relinquished By			Date	Time	3. Received By			Date	Time														
Comments																							

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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LOT RECEIPT CHECKLIST  
STL Sacramento

CLIENT CH2mH11 PM DB LOG # 29848  
LOT# (QUANTIMS ID) G4L010311 QUOTE# 60733 LOCATION W8D

DATE RECEIVED 12-1-04 TIME RECEIVED 915 Initials av Date 12-1-04

DELIVERED BY  FEDEX  CA OVERNIGHT  CLIENT  
 AIRBORNE  GOLDENSTATE  DHL  
 UPS  BAX GLOBAL  GO-GETTERS  
 STL COURIER  COURIERS ON DEMAND  
 OTHER

CUSTODY SEAL STATUS  INTACT  BROKEN  N/A

CUSTODY SEAL #(S) Seals

SHIPPING CONTAINER(S)  STL  CLIENT  N/A

TEMPERATURE RECORD (IN °C) IR 1  3  OTHER

COC #(S) 142799

TEMPERATURE BLANK 5°

SAMPLE TEMPERATURE 3°

COLLECTOR'S NAME:  Verified from COC  Not on COC

pH MEASURED  YES  ANOMALY  N/A

LABELED BY.....

LABELS CHECKED BY.....

PEER REVIEW  N/A

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM  N/A

VOA-ENCORES  N/A

METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL

N/A

COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES

N/A

Clouseau

TEMPERATURE EXCEEDED (2 °C – 6 °C)<sup>1</sup>  N/A

WET ICE

BLUE ICE  GEL PACK  NO COOLING AGENTS USED

PM NOTIFIED

Notes: \_\_\_\_\_

\*1 Acceptable temperature range for State of Wisconsin samples is <4°C.

# **WATER, 1625 Modified, Semivolatiles by HRMS**

## CH2M Hill Inc

Client Sample ID: OC2-00-W-2-78

## Trace Level Organic Compounds

Lot-Sample #....: G4L010311-001 Work Order #....: GX3LR1AA Matrix.....: WATER  
 Date Sampled....: 11/30/04 Date Received...: 12/01/04  
 Prep Date.....: 12/03/04 Analysis Date...: 12/04/04  
 Prep Batch #....: 4338287  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
N-Nitrosodimethylamine	ND	2.0	ng/L	CFR136A 1625 Modi
1,2,3-Trichloropropane	ND	5.0	ng/L	CFR136A 1625 Modi
<u>INTERNAL STANDARDS</u>		<u>PERCENT</u>	<u>RECOVERY</u>	
		<u>RECOVERY</u>	<u>LIMITS</u>	
N-Nitrosodimethylamine-d6	27	(25 - 150)		
1,2,3-Trichloropropane-d5	86	(25 - 150)		

**CH2M Hill Inc**

**Client Sample ID: OC2-0W7-W-5-79**

**Trace Level Organic Compounds**

Lot-Sample #....: G4L010311-002    Work Order #....: GX3LW1AC    Matrix.....: WATER  
Date Sampled....: 11/30/04    Date Received...: 12/01/04  
Prep Date.....: 12/03/04    Analysis Date...: 12/04/04  
Prep Batch #....: 4338287  
Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
N-Nitrosodimethylamine	ND G	4.6	ng/L	CFR136A 1625 Modi
1,2,3-Trichloropropane	ND G	7.2	ng/L	CFR136A 1625 Modi
<u>INTERNAL STANDARDS</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>		
N-Nitrosodimethylamine-d6	34	(25 - 150)		
1,2,3-Trichloropropane-d5	86	(25 - 150)		

**NOTE(S) :**

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

## CH2M Hill Inc

Client Sample ID: OC2-0W4B-W-0-80

## Trace Level Organic Compounds

Lot-Sample #....: G4L010311-003    Work Order #....: GX3L01AC    Matrix.....: WATER  
 Date Sampled....: 11/30/04    Date Received...: 12/01/04  
 Prep Date.....: 12/03/04    Analysis Date...: 12/04/04  
 Prep Batch #....: 4338287  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>DETECTION</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
N-Nitrosodimethylamine	ND	2.0	ng/L	CFR136A 1625 Modi
1,2,3-Trichloropropane	ND	5.0	ng/L	CFR136A 1625 Modi
<u>INTERNAL STANDARDS</u>		<u>PERCENT</u>	<u>RECOVERY</u>	
N-Nitrosodimethylamine-d6		20 *	(25 - 150)	
1,2,3-Trichloropropane-d5		64	(25 - 150)	

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

CH2M Hill Inc

Client Sample ID: OC2-0W4A-W-0-81

Trace Level Organic Compounds

Lot-Sample #....: G4L010311-004 Work Order #....: GX3L11AC Matrix.....: WATER  
Date Sampled....: 11/30/04 Date Received...: 12/01/04  
Prep Date.....: 12/03/04 Analysis Date...: 12/04/04  
Prep Batch #....: 4338287  
Dilution Factor: 1

PARAMETER	RESULT	DETECTION		METHOD
		LIMIT	UNITS	
N-Nitrosodimethylamine	ND	2.0	ng/L	CFR136A 1625 Modi
1,2,3-Trichloropropane	ND	5.0	ng/L	CFR136A 1625 Modi
INTERNAL STANDARDS	PERCENT	RECOVERY		
	RECOVERY	LIMITS		
N-Nitrosodimethylamine-d6	7.0 *	(25 - 150)		
1,2,3-Trichloropropane-d5	64	(25 - 150)		

NOTE(S) :

\* Surrogate recovery is outside stated control limits.

# QC DATA ASSOCIATION SUMMARY

G4L010311

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	CFR136A 1625 Modi		4338287	4338171
002	WATER	MCAWW 410.4		4341231	4341107
	WATER	CFR136A 1625 Modi		4338287	4338171
003	WATER	MCAWW 410.4		4341231	4341107
	WATER	CFR136A 1625 Modi		4338287	4338171
004	WATER	MCAWW 410.4		4341231	4341107
	WATER	CFR136A 1625 Modi		4338287	4338171

METHOD BLANK REPORT

Trace Level Organic Compounds

Client Lot #....: G4L010311      Work Order #....: GX8C21AA      Matrix.....: WATER  
MB Lot-Sample #: G4L030000-287  
Prep Date.....: 12/03/04  
Analysis Date...: 12/04/04      Prep Batch #....: 4338287  
Dilution Factor: 1

<u>PARAMETER</u>	DETECTION			<u>METHOD</u>
	<u>RESULT</u>	<u>LIMIT</u>	<u>UNITS</u>	
N-Nitrosodimethylamine	ND	2.0	ng/L	CFR136A 1625 Modi
1,2,3-Trichloropropane	ND	5.0	ng/L	CFR136A 1625 Modi
<u>INTERNAL STANDARDS</u>	PERCENT			<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>		
N-Nitrosodimethylamine-d6	3.3 *	(25 - 150)		
1,2,3-Trichloropropane-d5	63	(25 - 150)		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

\* Surrogate recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

Trace Level Organic Compounds

Client Lot #....: G4L010311      Work Order #....: GX8C21AC      Matrix.....: WATER  
LCS Lot-Sample#: G4L030000-287  
Prep Date.....: 12/03/04      Analysis Date...: 12/04/04  
Prep Batch #....: 4338287  
Dilution Factor: 1

PARAMETER	PERCENT	RECOVERY	METHOD
	RECOVERY	LIMITS	
N-Nitrosodimethylamine	90	(70 - 130)	CFR136A 1625 Modifie
1,2,3-Trichloropropane	75	(50 - 150)	CFR136A 1625 Modifie

INTERNAL STANDARD	PERCENT	RECOVERY
	RECOVERY	LIMITS
N-Nitrosodimethylamine-d6	20 *	(25 - 150)
1,2,3-Trichloropropane-d5	66	(25 - 150)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

\* Surrogate recovery is outside stated control limits.

## LABORATORY CONTROL SAMPLE DATA REPORT

## Trace Level Organic Compounds

Client Lot #....: G4L010311      Work Order #....: GX8C21AC      Matrix.....: WATER  
 LCS Lot-Sample#: G4L030000-287  
 Prep Date.....: 12/03/04      Analysis Date...: 12/04/04  
 Prep Batch #....: 4338287  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>	
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>RECOVERY</u>	<u>METHOD</u>
N-Nitrosodimethylamine	100	90.4	90	CFR136A 1625
1,2,3-Trichloropropane	100	75.2	75	CFR136A 1625

<u>INTERNAL STANDARD</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
N-Nitrosodimethylamine-d6	20 *	(25 - 150)
1,2,3-Trichloropropane-d5	66	(25 - 150)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

\* Surrogate recovery is outside stated control limits.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**Trace Level Organic Compounds**

<b>Client Lot #....:</b> G4L010311	<b>Work Order #....:</b> GX3LW1AF-MS	<b>Matrix.....:</b> WATER
<b>MS Lot-Sample #:</b> G4L010311-002	GX3LW1AG-MSD	
<b>Date Sampled....:</b> 11/30/04	<b>Date Received...:</b> 12/01/04	
<b>Prep Date.....:</b> 12/03/04	<b>Analysis Date...:</b> 12/04/04	
<b>Prep Batch #....:</b> 4338287		
<b>Dilution Factor:</b> 1		

<b>PARAMETER</b>	<b>PERCENT</b>	<b>RECOVERY</b>	<b>RPD</b>	<b>LIMITS</b>	<b>METHOD</b>
	<b>RECOVERY</b>	<b>LIMITS</b>	<b>RPD</b>	<b>LIMITS</b>	
N-Nitrosodimethylamine	72	(70 - 130)			CFR136A 1625 Modifie
	85	(70 - 130)	17	(0-20)	CFR136A 1625 Modifie
1,2,3-Trichloropropane	82	(50 - 150)			CFR136A 1625 Modifie
	84	(50 - 150)	2.0	(0-50)	CFR136A 1625 Modifie

<b>INTERNAL STANDARDS</b>	<b>PERCENT</b>	<b>RECOVERY</b>
	<b>RECOVERY</b>	<b>LIMITS</b>
N-Nitrosodimethylamine-d6	27	(25 - 150)
	31	(25 - 150)
1,2,3-Trichloropropane-d5	70	(25 - 150)
	86	(25 - 150)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

**MATRIX SPIKE SAMPLE DATA REPORT**

**Trace Level Organic Compounds**

Client Lot #....: G4L010311      Work Order #....: GX3LW1AF-MS      Matrix.....: WATER  
 MS Lot-Sample #: G4L010311-002      GX3LW1AG-MSD  
 Date Sampled....: 11/30/04      Date Received...: 12/01/04  
 Prep Date.....: 12/03/04      Analysis Date...: 12/04/04  
 Prep Batch #....: 4338287  
 Dilution Factor: 1

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	
N-Nitrosodimethylamine	ND	100	72.0	ng/L	72	CFR136A 1625 Modifie
	ND	100	85.2	ng/L	85	CFR136A 1625 Modifie
1,2,3-Trichloropropane	ND	100	82.4	ng/L	82	CFR136A 1625 Modifie
	ND	100	84.0	ng/L	84	CFR136A 1625 Modifie

INTERNAL STANDARDS	PERCENT	RECOVERY
	RECOVERY	LIMITS
N-Nitrosodimethylamine-d6	27	(25 - 150)
	31	(25 - 150)
1,2,3-Trichloropropane-d5	70	(25 - 150)
	86	(25 - 150)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## **Raw Data Package**

## **Run/Batch Data**

***Includes (as applicable):***

***runlogs***

***continuing calibration standards***

***interference/performance check standards***

***continuing calibration blanks***

***method blanks***

***Ics***

***ms/sd***

***sample raw data***

***ms tune data***

## Quantitation Summary

STL

Page 2 of

Run text: GX8C2-1-AAB      Sample text: GX8C2-1-AAB :G4L010311-1MB  
 Run #7    Filename: 03DE04B5SP    S: 9    I: 1    Results: 03DE045SP1625  
 Acquired: 4-DEC-04    00:43:41      Processed: 6-DEC-04    13:29:32  
 Run: 03DE04B5SP      Analyte: 1625      Cal: 16251203045SP  
 Factor 1: 1.000      Factor 2: 1.000      Sample size: 1.000    L

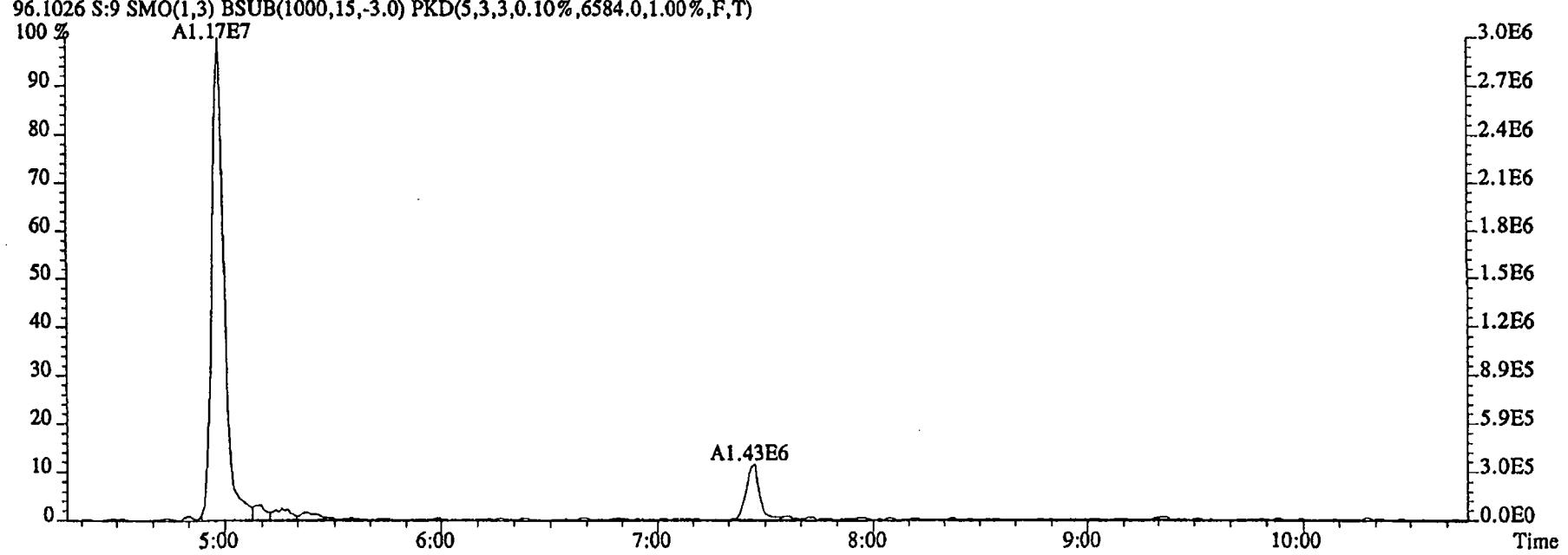
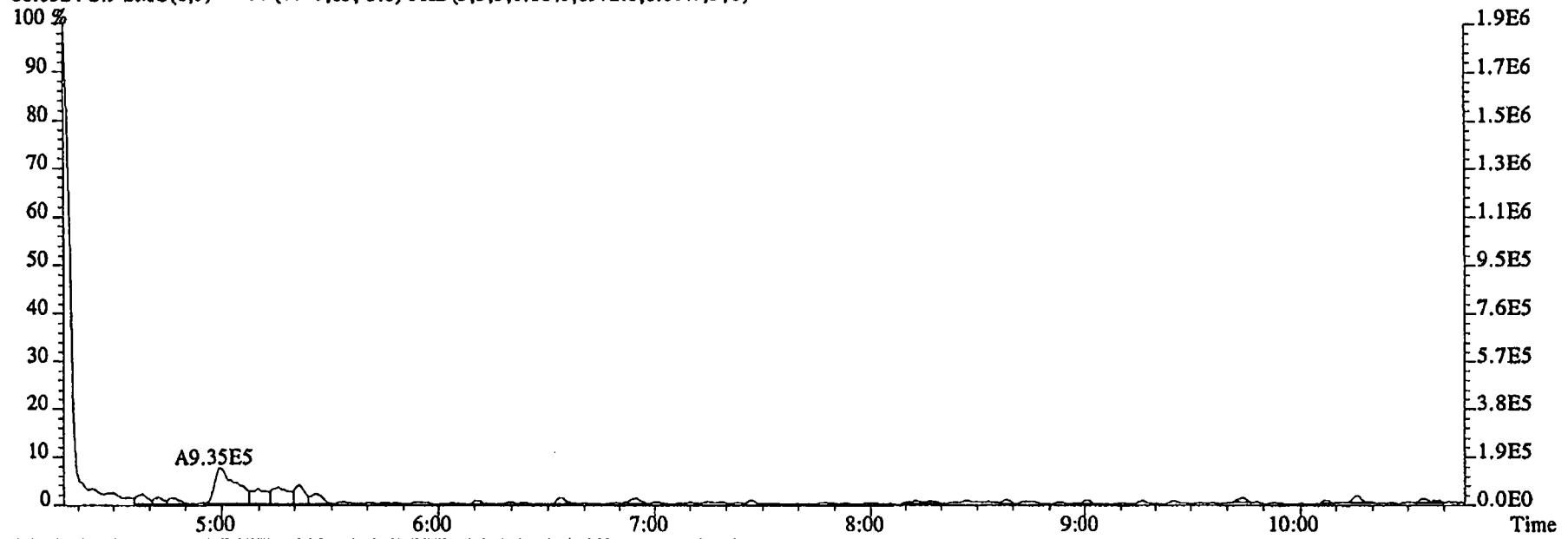
Name	Resp	RA	RT	RRF	Conc	SL	EDL	Rec	M
2-Chloropyridine	81961000		10:57	-	272.73		-	-	n
D8-1,4-Dioxane	11680800		4:59	0.99	28.87		0.14	2.9	n
1,4-Dioxane	934825		4:59	1.59	50.24		5.69	-	n
D5-123-TriChloroPropane	103451000		9:53	4.02	62.75		0.04	62.7	n
1,2,3-TriChloroPropane	*		Not Fnd	0.39	*	25.0	0.37	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*		-	-	n
D6-NDMA	3352220		10:03	2.49	3.29		0.03	3.3	n
NDMA	74214		10:04	1.10	2.01 = DL 52.0	6.301.13	-	y	
2-Chloropyridine	254343000		10:57	-	264.87		-	-	n

12.13.04  
C

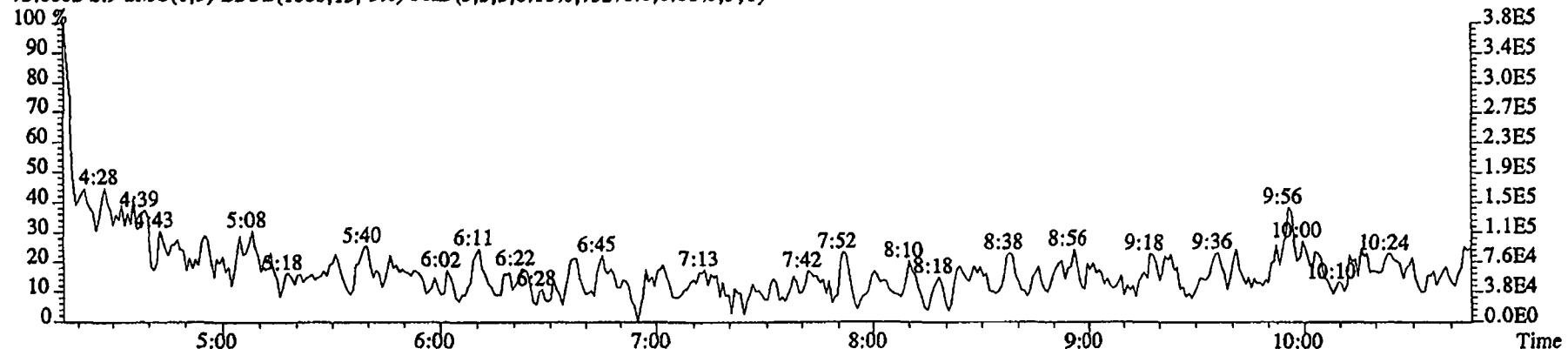
Run text: GX8C2-1-AAB      Sample text: GX8C2-1-AAB :G4L010311-1MB  
 Run #7    Filename: 03DE04B5SP    S: 9    I: 1    Results: 03DE045SP1625  
 Acquired: 4-DEC-04    00:43:41                  Processed: 6-DEC-04    13:29:32  
 Run: 03DE04B5SP           Analyte: 1625                  Cal: 16251203045SP  
 Factor 1: 1.000           Factor 2: 1.000                  Sample size: 1.000    L

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
2-Chloropyridine	81961000		10:57	-	272.73	-	-	n
D8-1,4-Dioxane	11680800		4:59	0.99	28.87	0.14	2.9	n
1,4-Dioxane	934825		4:59	1.59	50.24	5.69	-	n
D5-123-TriChloroPropane	103451000		9:53	4.02	62.75	0.04	62.7	n
1,2,3-TriChloroPropane	*		Not Fnd	0.39	*	0.37	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*	-	-	n
D6-NDMA	3352220		10:03	2.49	3.29	0.03	3.3	n
NDMA	108358		10:04	1.10	2.93	6.30	-	n
2-Chloropyridine	254343000		10:57	-	264.87	-	-	n

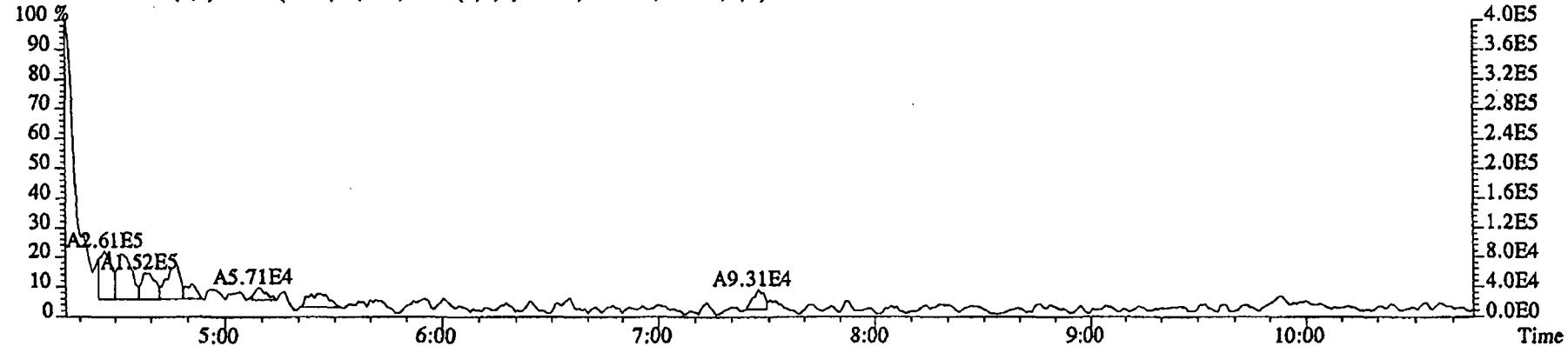
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
88.0524 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8972.0,1.00%,F,T)



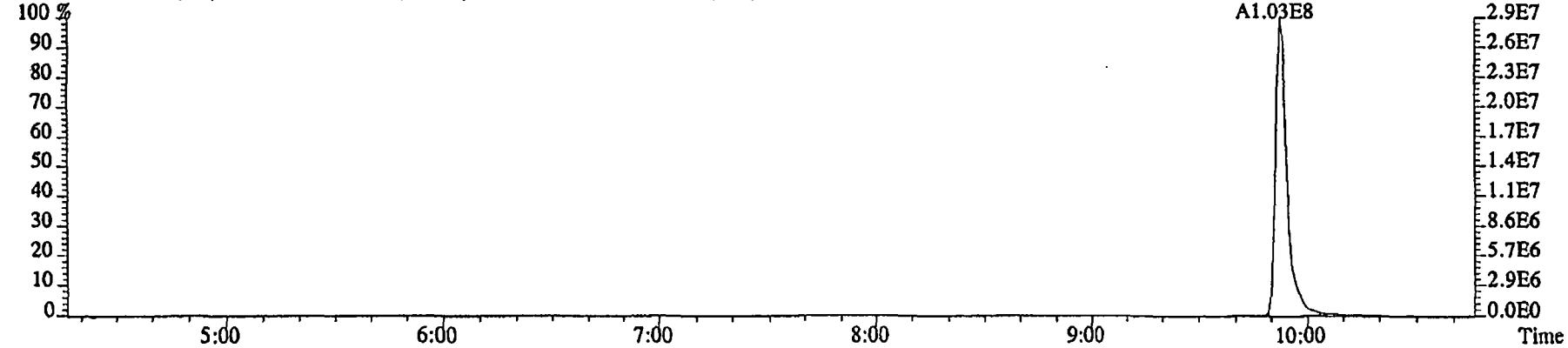
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
 Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
 75.0002 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,75276.0,1.00%,F,T)



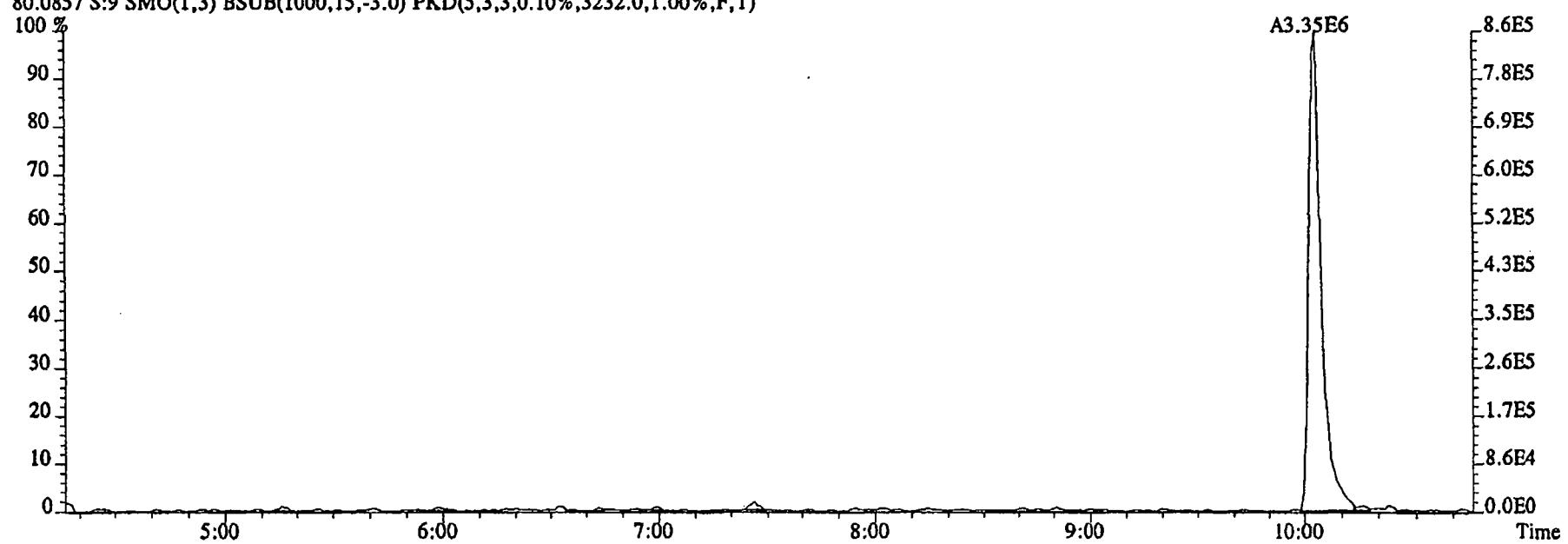
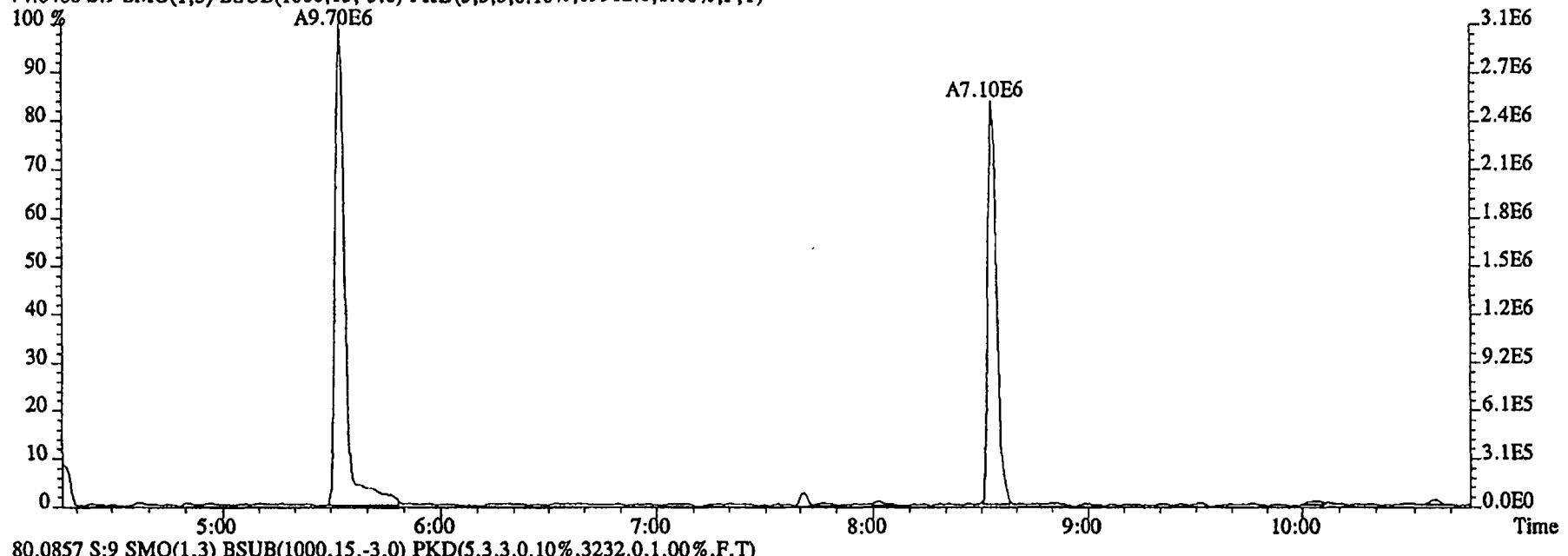
76.9972 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,14004.0,1.00%,F,T)



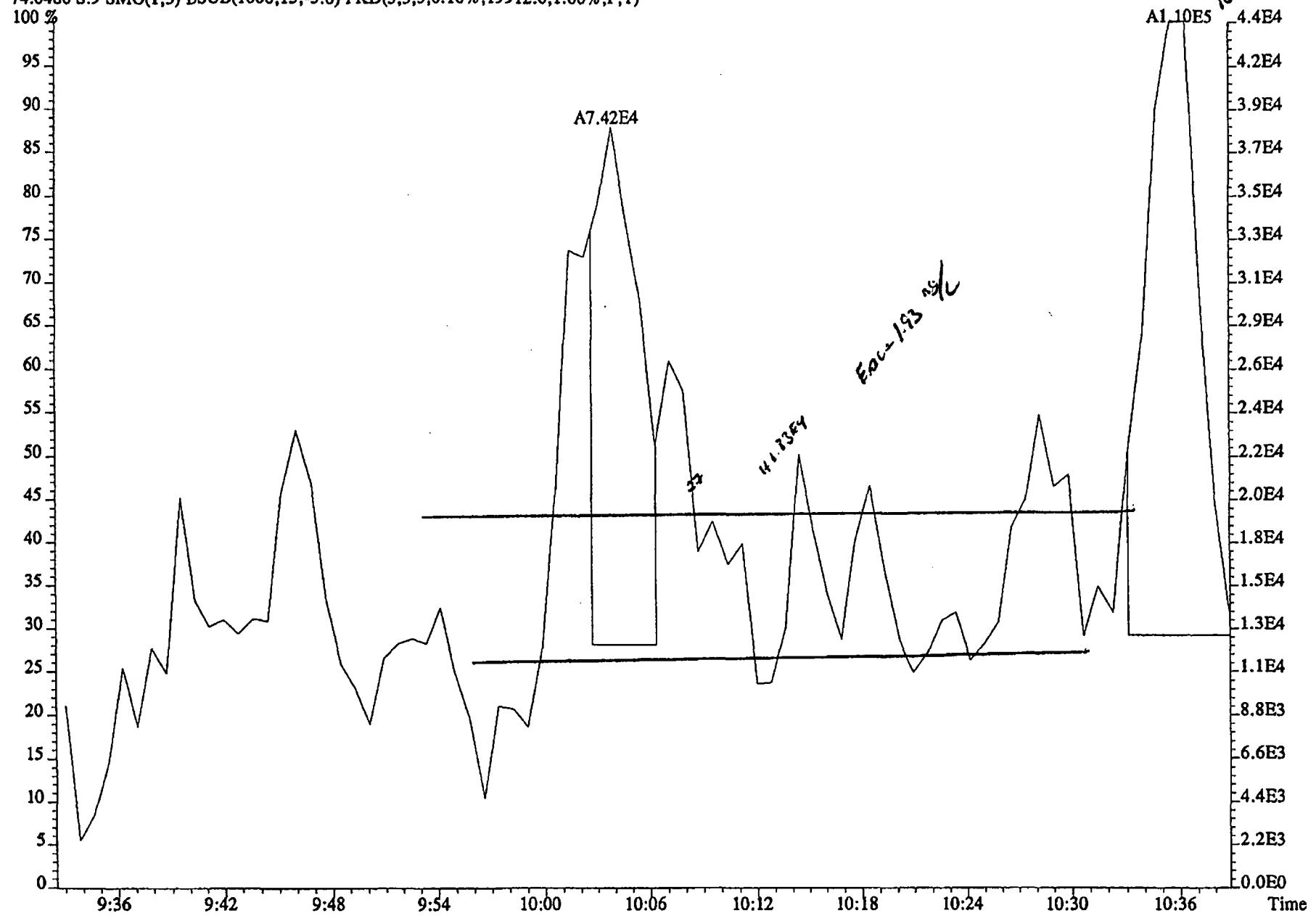
79.0253 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7256.0,1.00%,F,T)



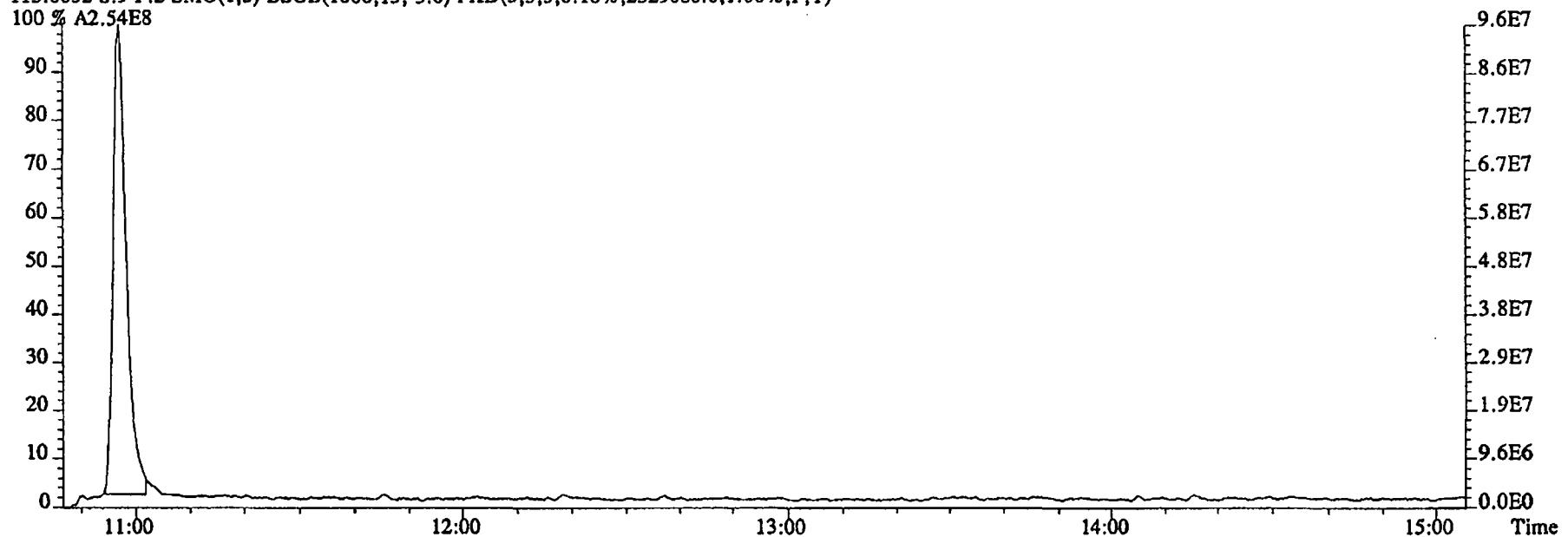
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
74.0480 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,19912.0,1.00%,F,T)



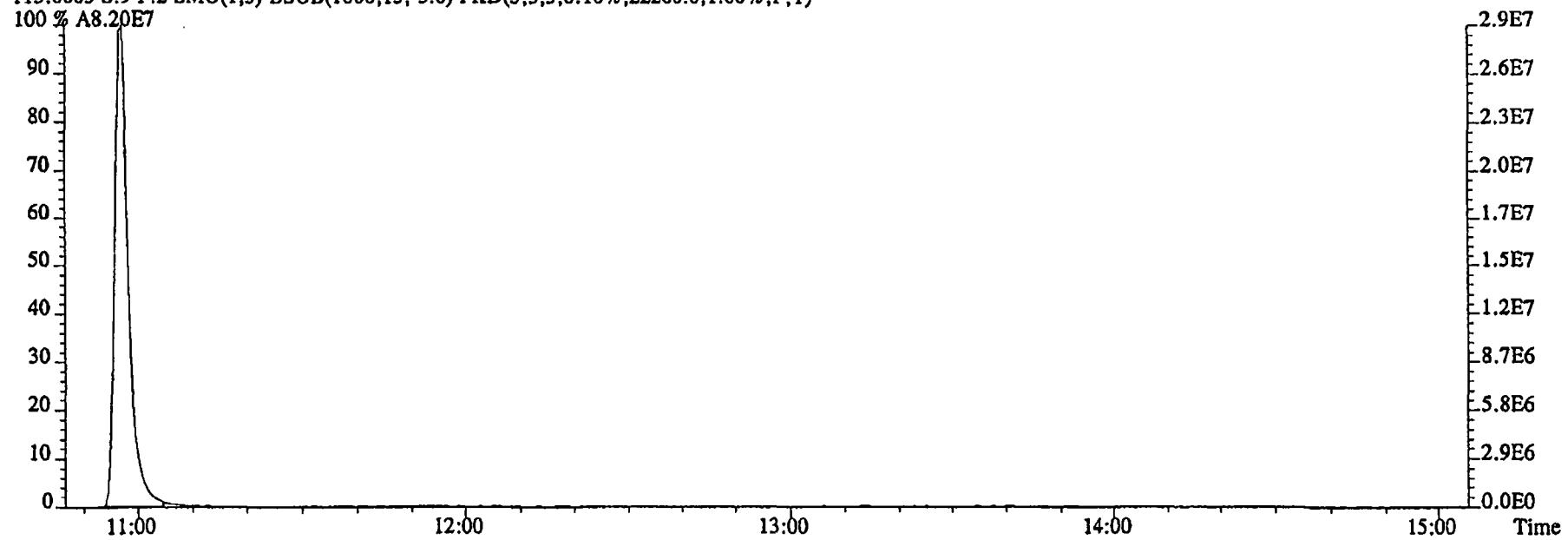
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
 Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
 74.0480 S:9 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,19912.0,1.00%,F,T)



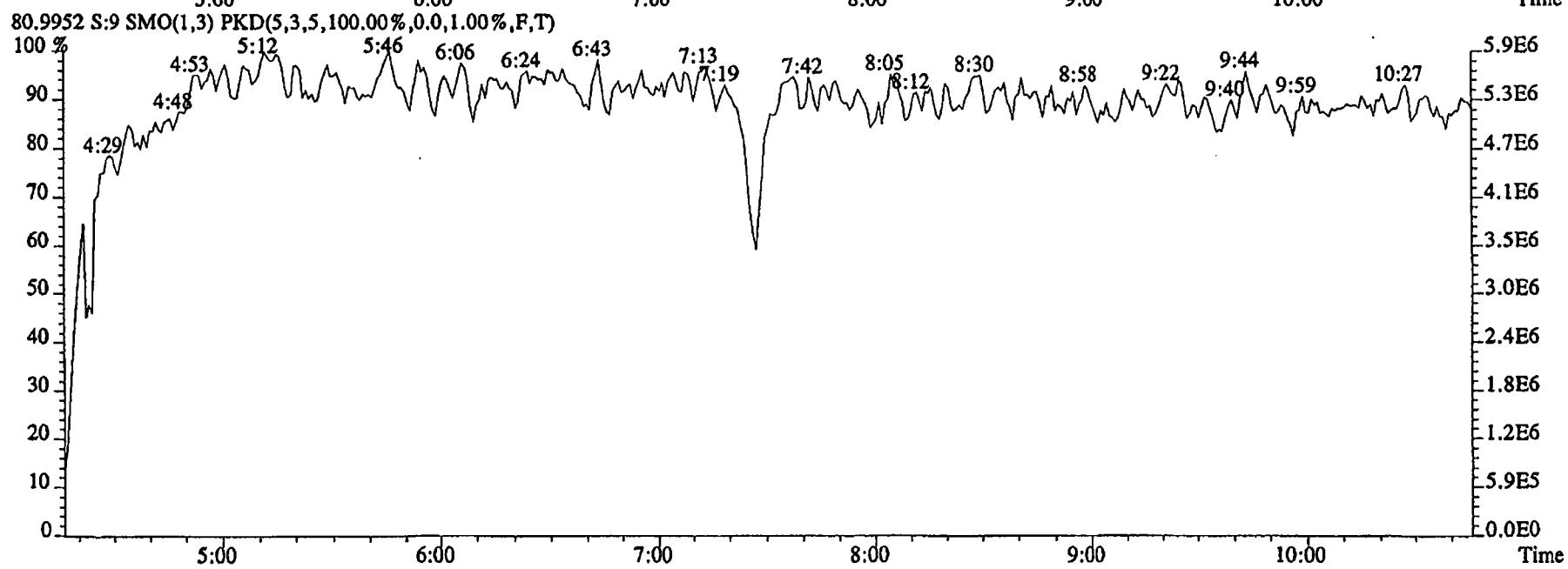
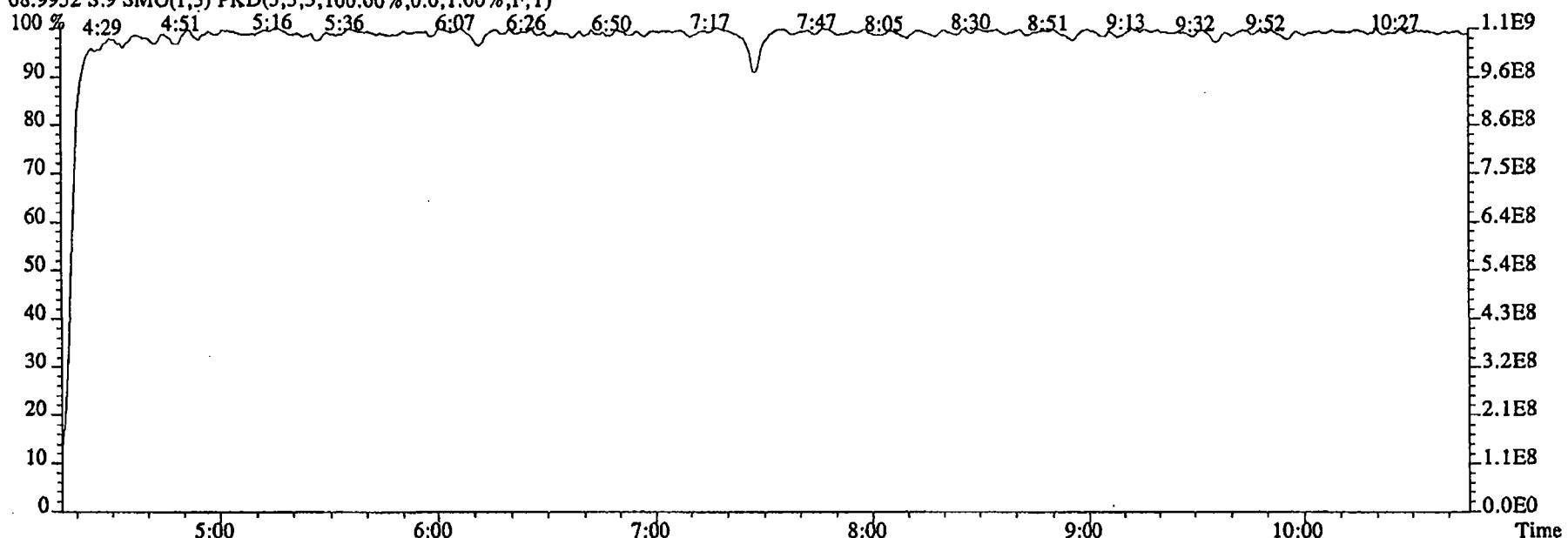
File:03DE04B5SP #1-603 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
113.0032 S:9 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2329080.0,1.00%,F,T)  
100 % A2.54E8



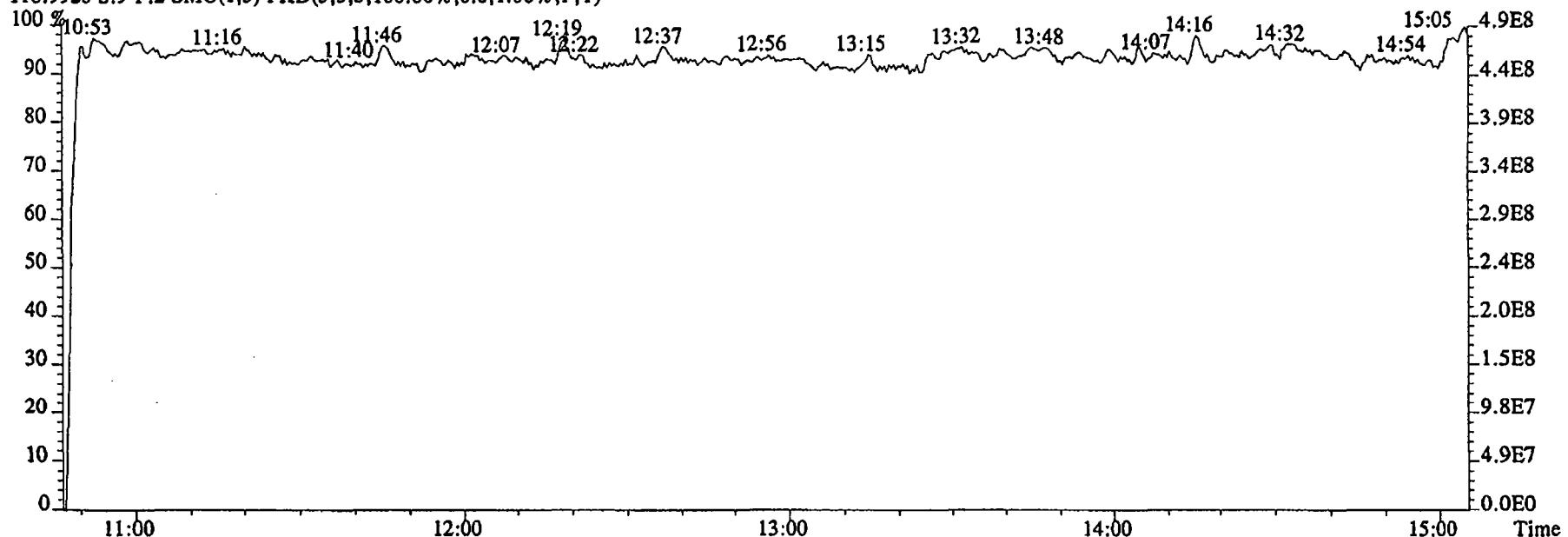
115.0003 S:9 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22260.0,1.00%,F,T)  
100 % A8.20E7



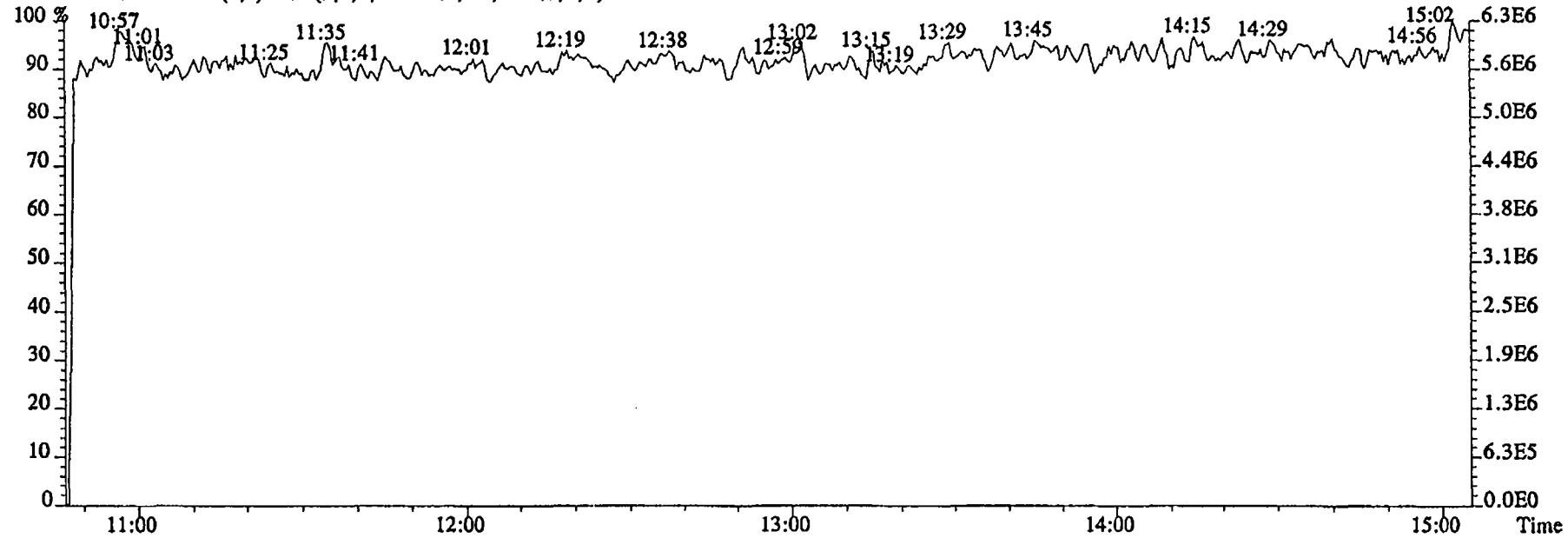
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
68.9952 S:9 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-603 Acq: 4-DEC-2004 00:43:41 GC EI+ Voltage SIR 70SE  
 Sample#9 Text:GX8C2-1-AAB :G4L010311-1MB Exp:NDMAVOA  
 118.9920 S:9 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:9 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

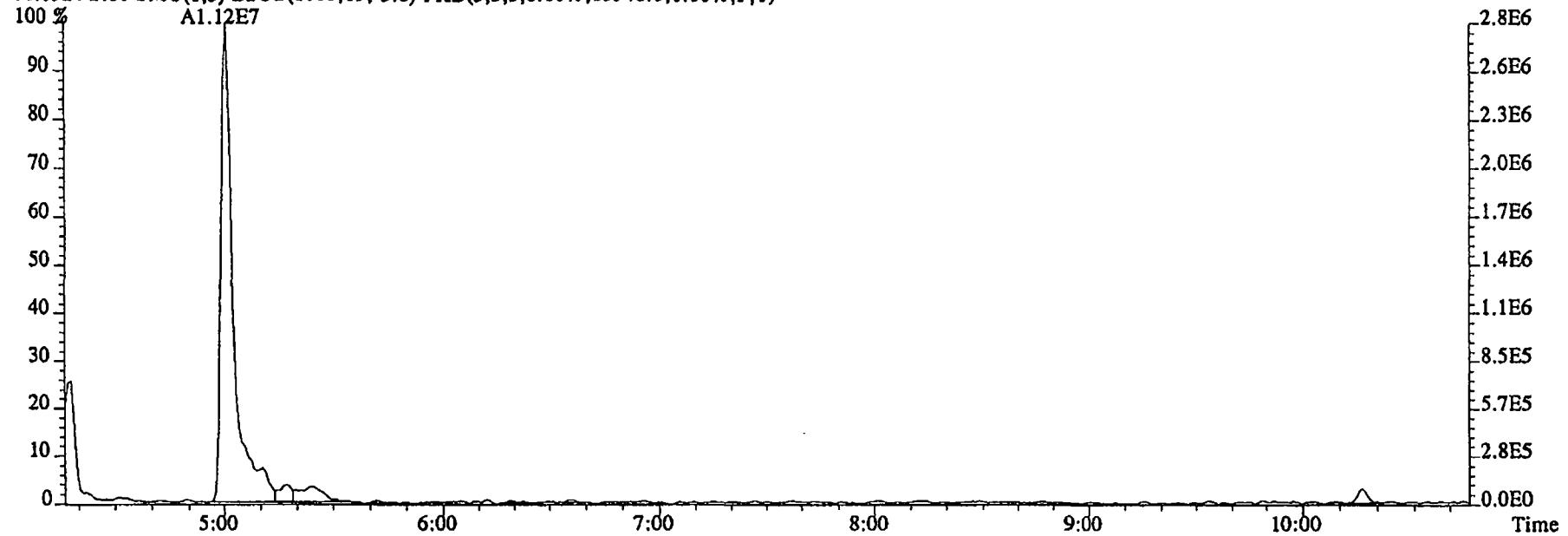


Run text: GX8C2-1-ACC      Sample text: GX8C2-1-ACC :G4L010311-1LCS  
 Run #8    Filename: 03DE04B5SP    S: 10    I: 1    Results: 03DE045SP1625  
 Acquired: 4-DEC-04    01:04:03    Processed: 6-DEC-04    13:29:33  
 Run: 03DE04B5SP    Analyte: 1625    Cal: 16251203045SP  
 Factor 1: 1.000    Factor 2: 1.000    Sample size: 1.000    L

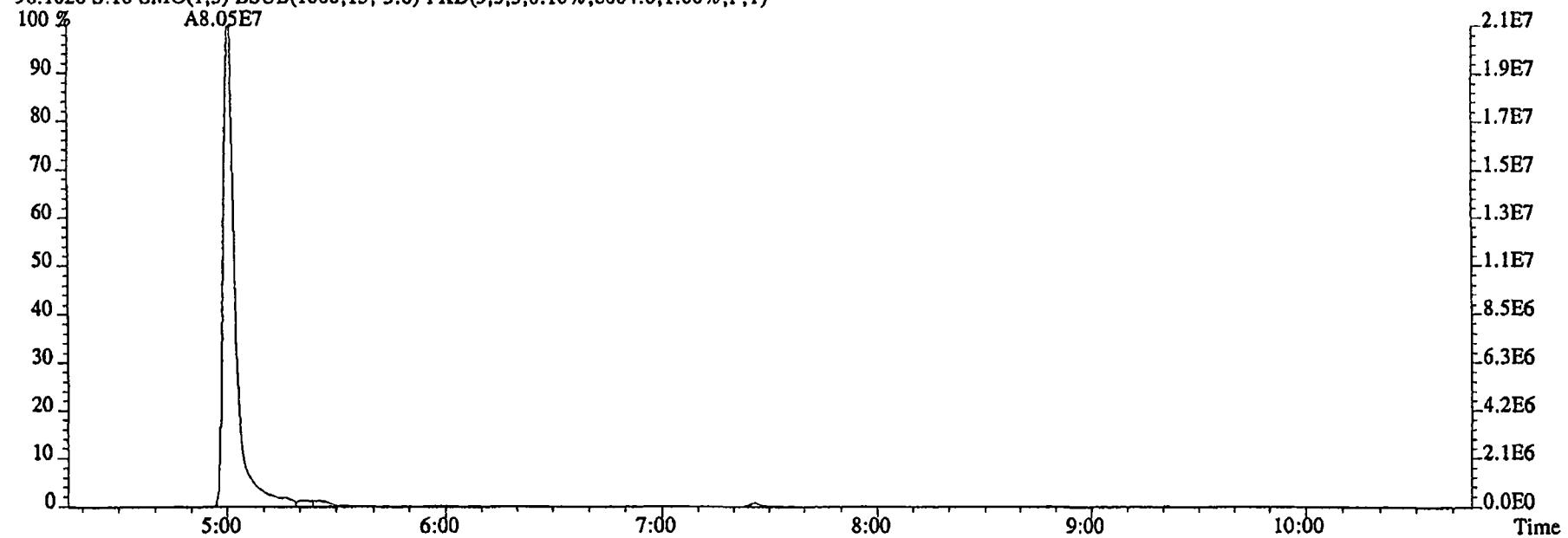
Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
2-Chloropyridine	98471600		10:57	-	327.67	-	-	n
D8-1,4-Dioxane	80470000		5:01	0.99	165.56	0.13	16.6	n
1,4-Dioxane	11217900		5:01	1.59	87.51	1.39	-	n
D5-123-TriChloroPropane	130999000		9:53	4.02	66.14	0.02	66.1	n
1,2,3-TriChloroPropane	38553500		9:56	0.39	75.22 ✓	0.35	-	n
1,2,3-TriChloroPropane	118635000		9:56	-	86.23	-	-	n
D6-NDMA	24128200		10:04	2.49	19.70	0.02	19.7	n
NDMA	24032600		10:03	1.10	90.42 ✓	0.73	-	n
2-Chloropyridine	317050000		10:57	-	330.17	-	-	n

12.13.4  
d'

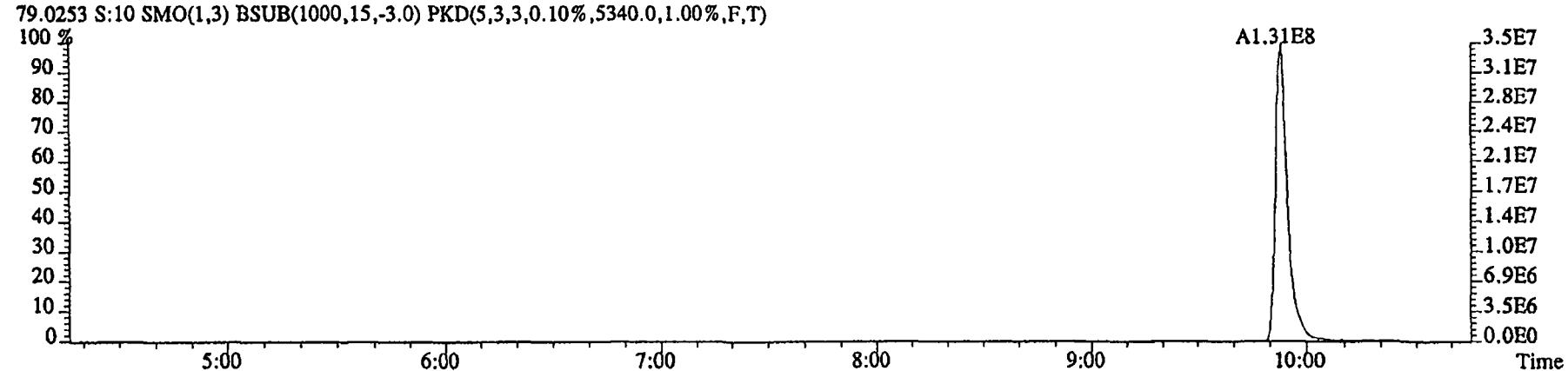
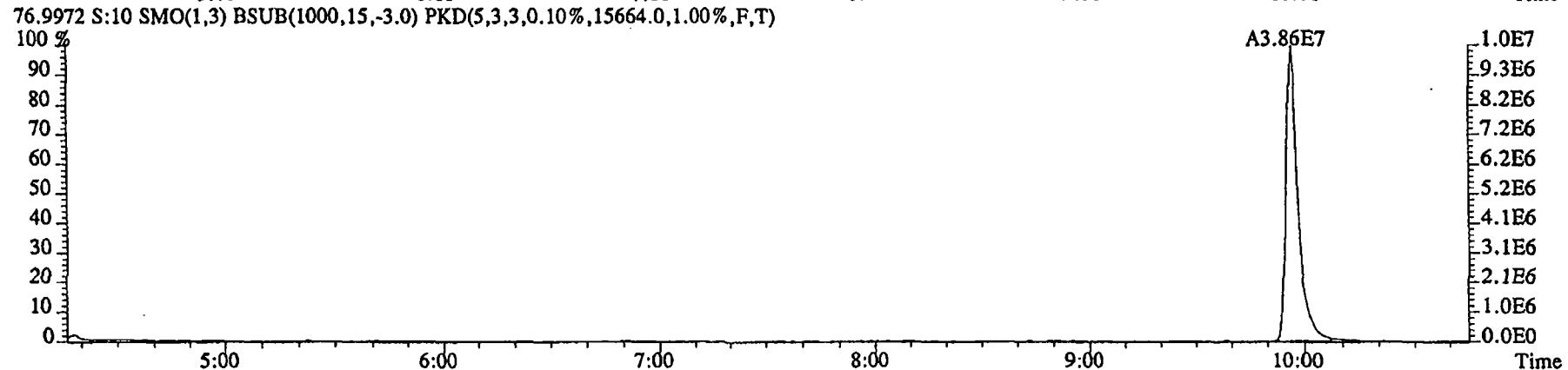
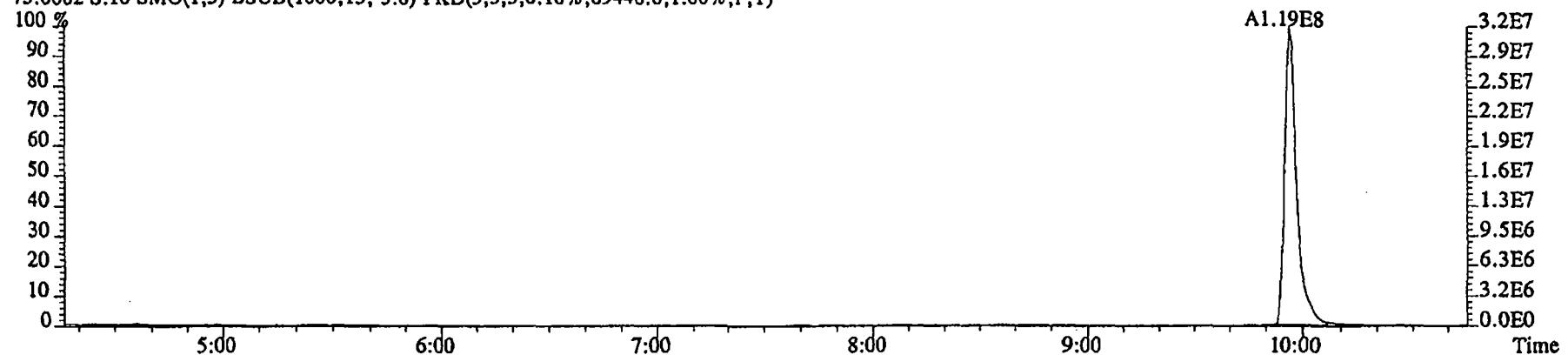
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:04:03 GC EI+ Voltage SIR 70SE  
Sample#10 Text:GX8C2-1-ACC :G4L010311-1LCS Exp:NDMAVOA  
88.0524 S:10 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15548.0,1.00%,F,T)



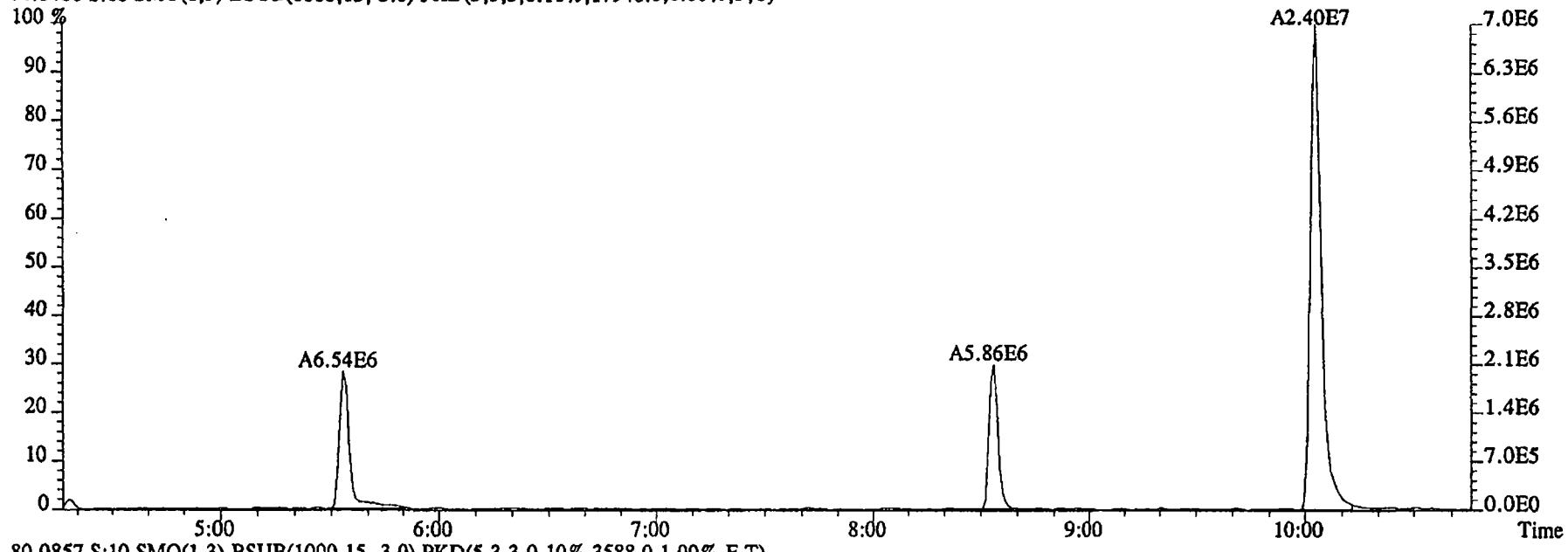
96.1026 S:10 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8004.0,1.00%,F,T)



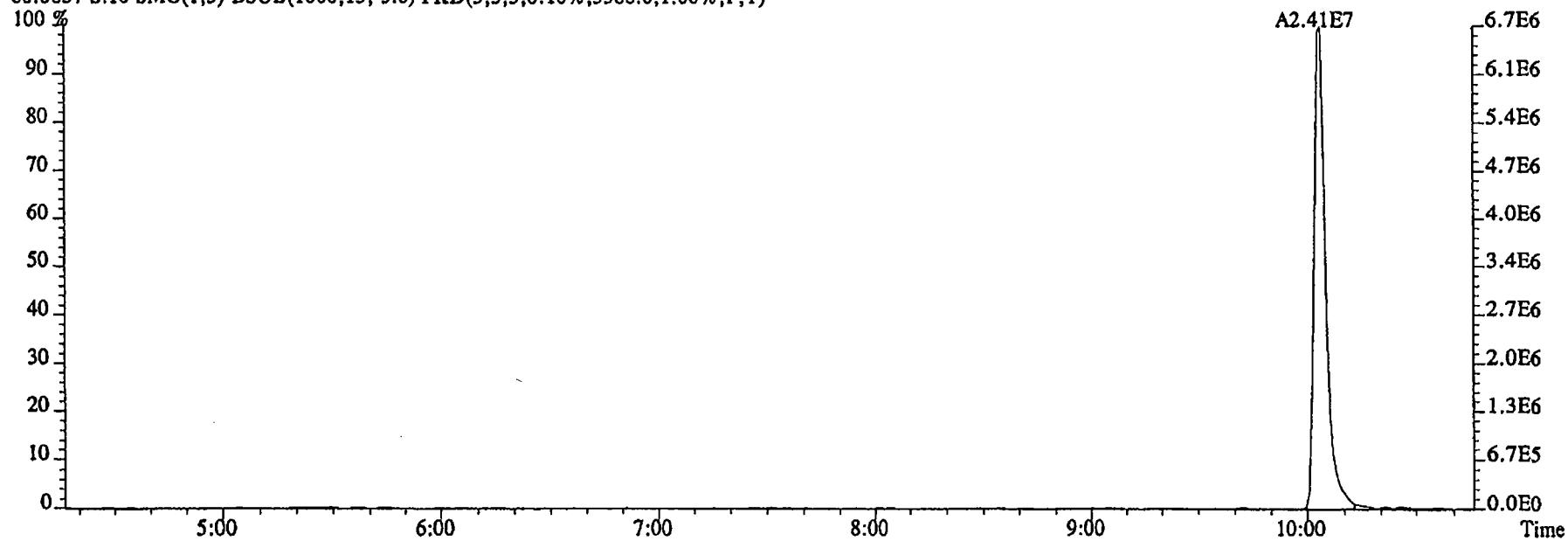
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:04:03 GC EI+ Voltage SIR 70SE  
Sample#10 Text:GX8C2-1-ACC :G4L010311-1LCS Exp:NDMAVOA  
75.0002 S:10 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,69448.0,1.00%,F,T)



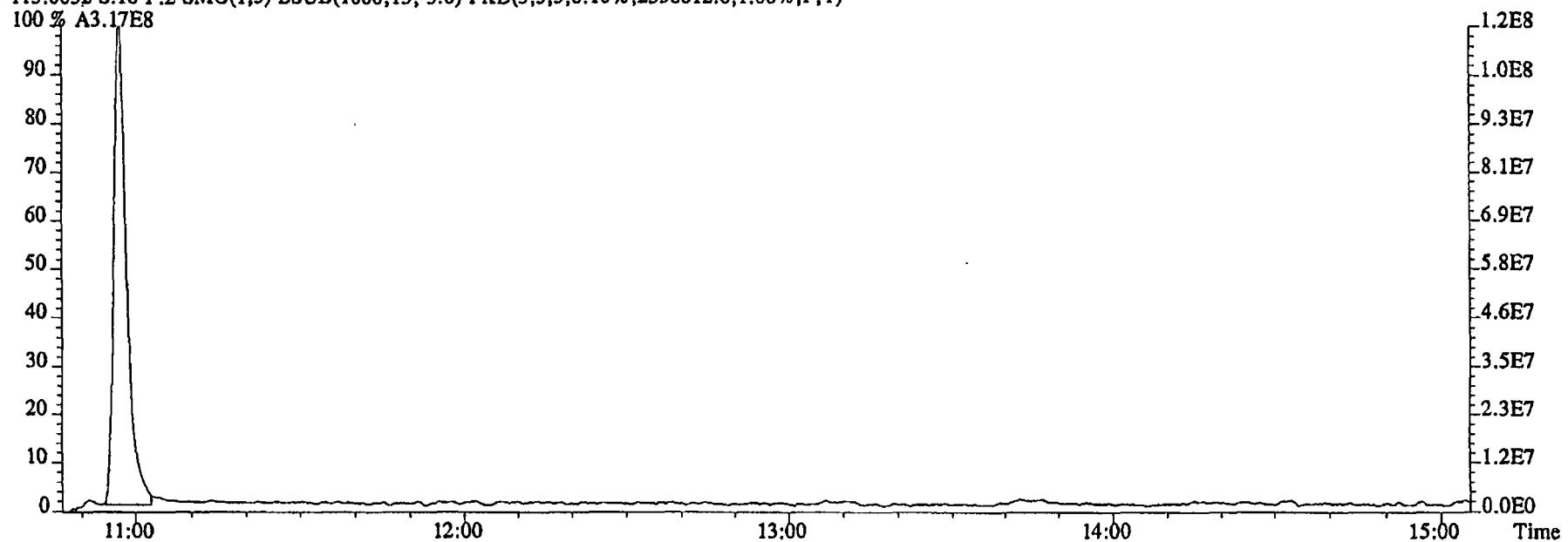
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:04:03 GC EI+ Voltage SIR 70SE  
Sample#10 Text:GX8C2-1-ACC :G4L010311-1LCS Exp:NDMAVOA  
74.0480 S:10 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,17948.0,1.00%,F,T)



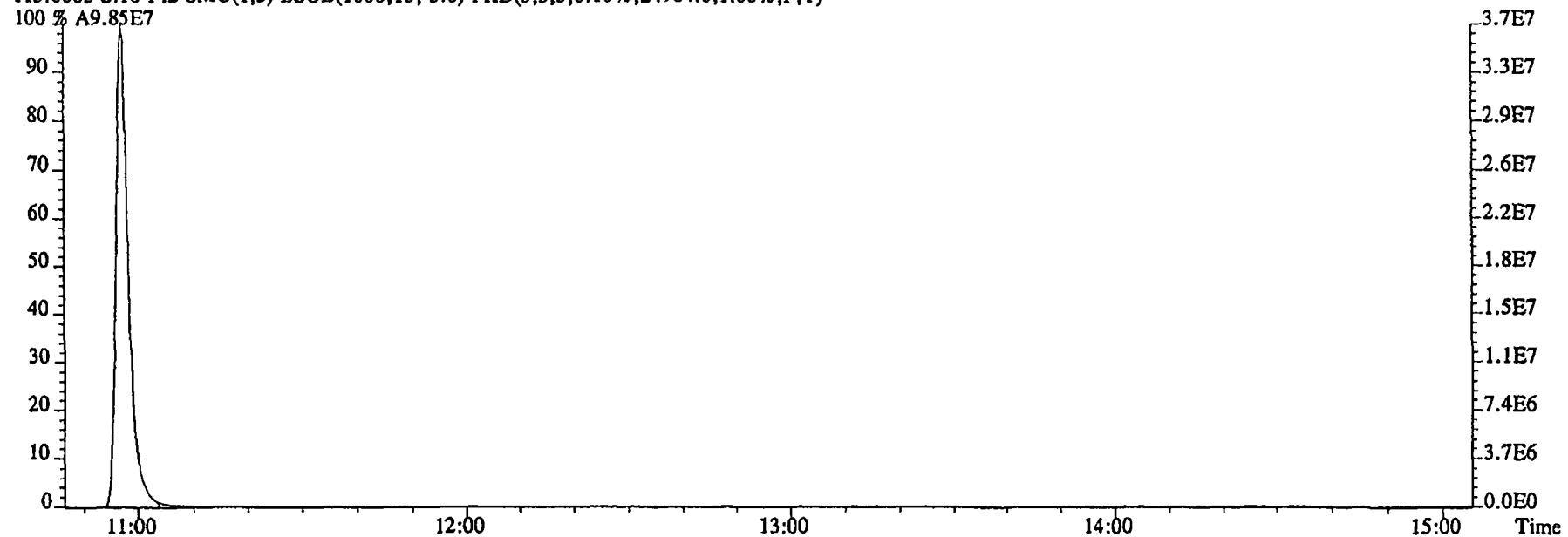
80.0857 S:10 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3588.0,1.00%,F,T)



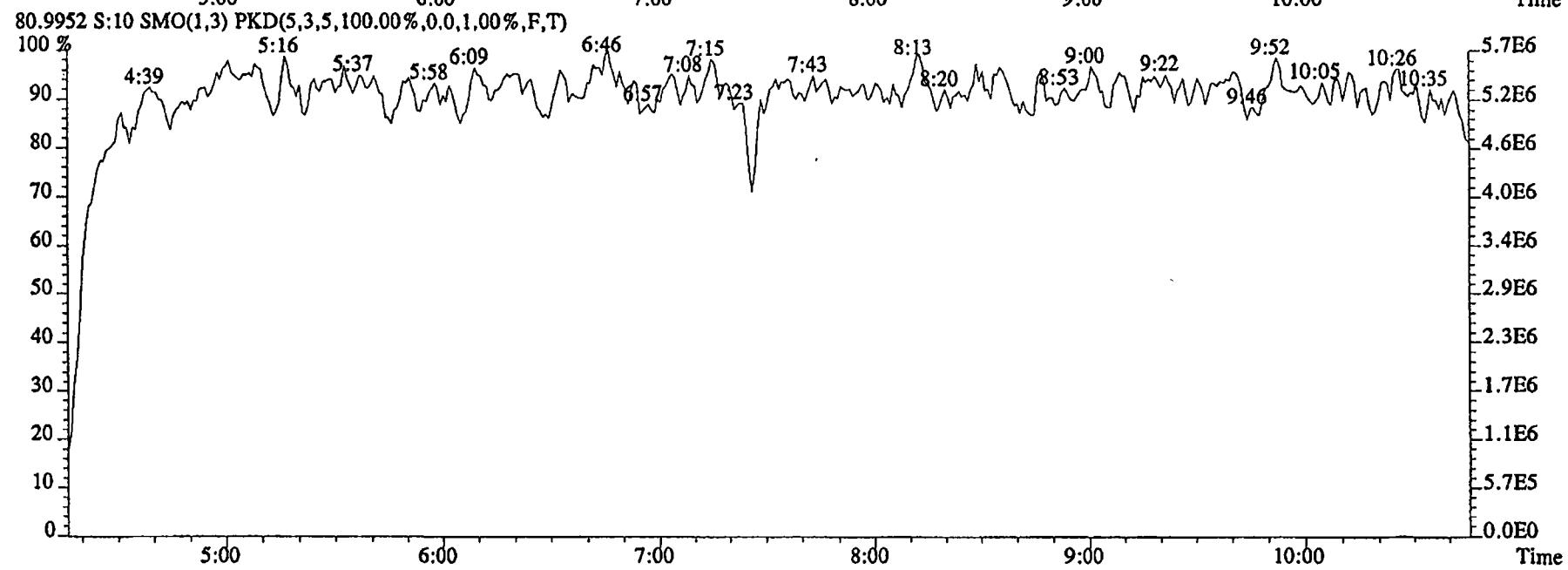
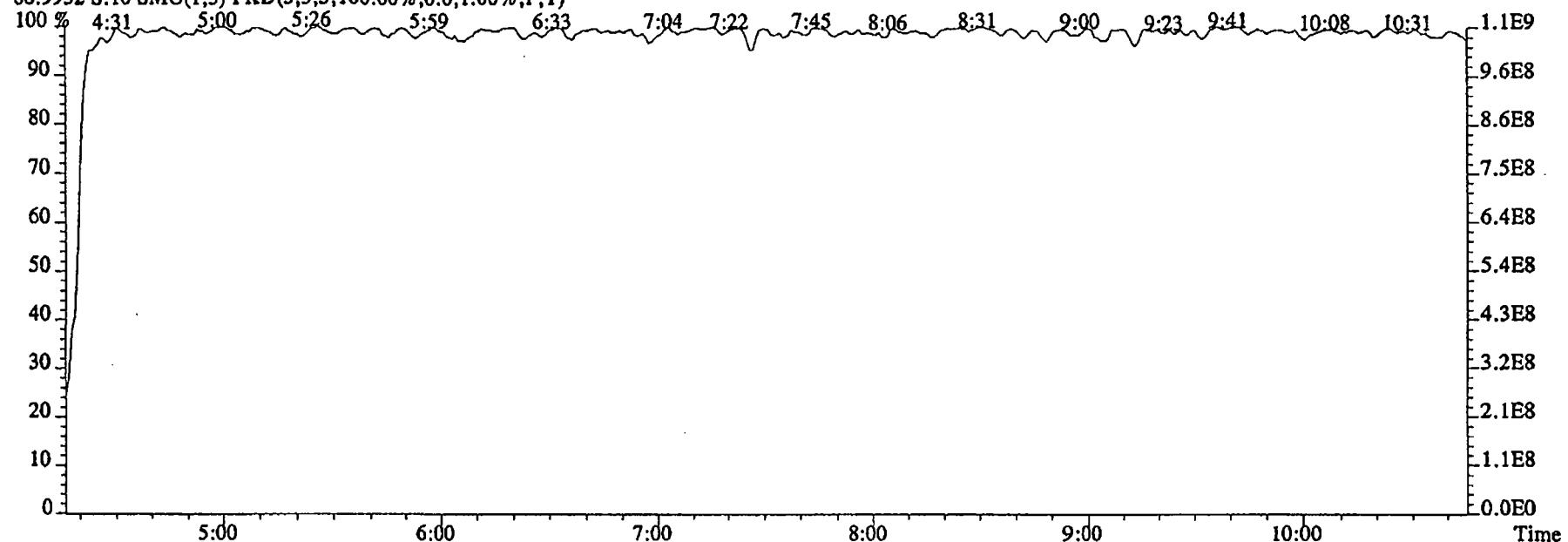
File:03DE04B5SP #1-603 Acq: 4-DEC-2004 01:04:03 GC EI+ Voltage SIR 70SE  
Sample#10 Text:GX8C2-1-ACC :G4L010311-1LCS Exp:NDMAVOA  
113.0032 S:10 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2558612.0,1.00%,F,T)  
100 % A3.17E8



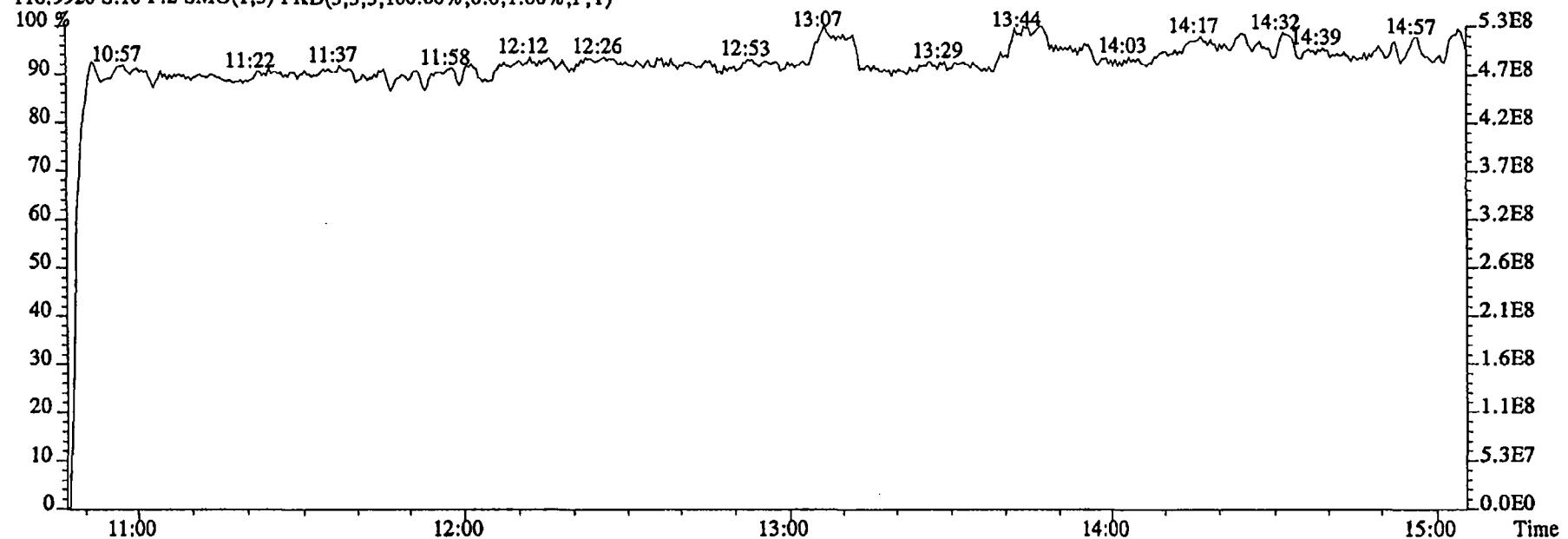
115.0003 S:10 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,24984.0,1.00%,F,T)  
100 % A9.85E7



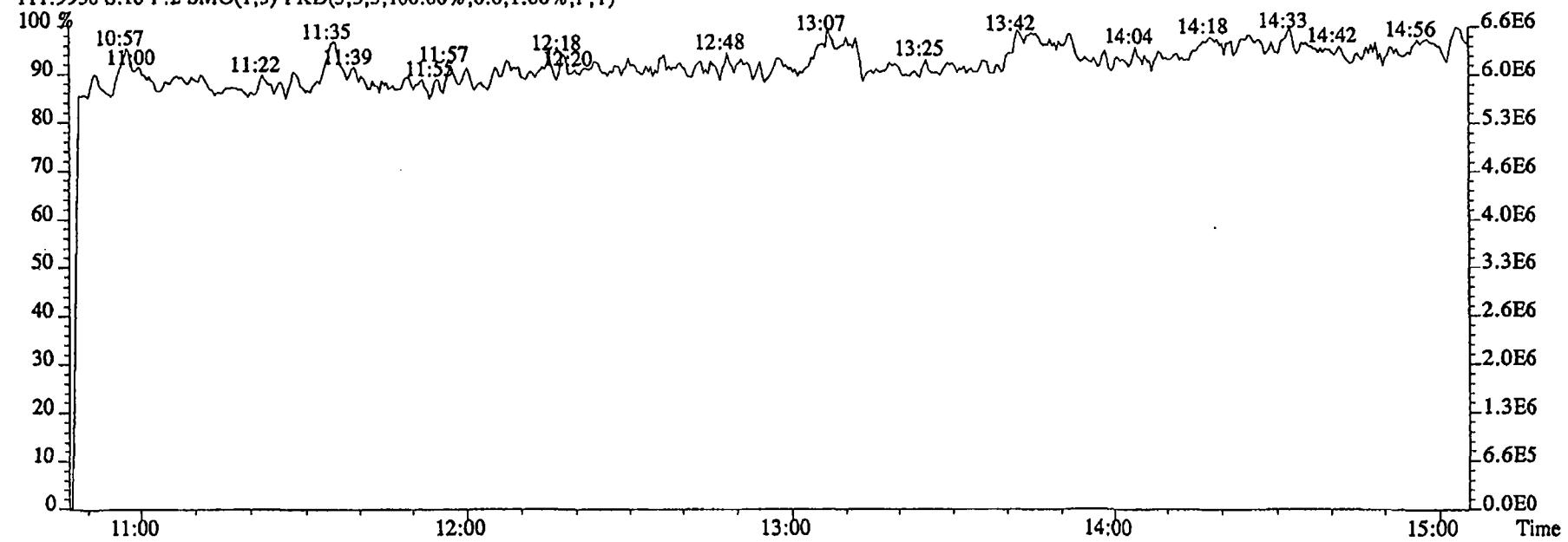
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:04:03 GC EI + Voltage SIR 70SE  
Sample#10 Text:GX8C2-1-ACC :G4L010311-1LCS Exp:NDMAVOA  
68.9952 S:10 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-603 Acq: 4-DEC-2004 01:04:03 GC EI+ Voltage SIR 70SE  
Sample#10 Text:GX8C2-1-ACC :G4L010311-1LCS Exp:NDMAVOA  
118.9920 S:10 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:10 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

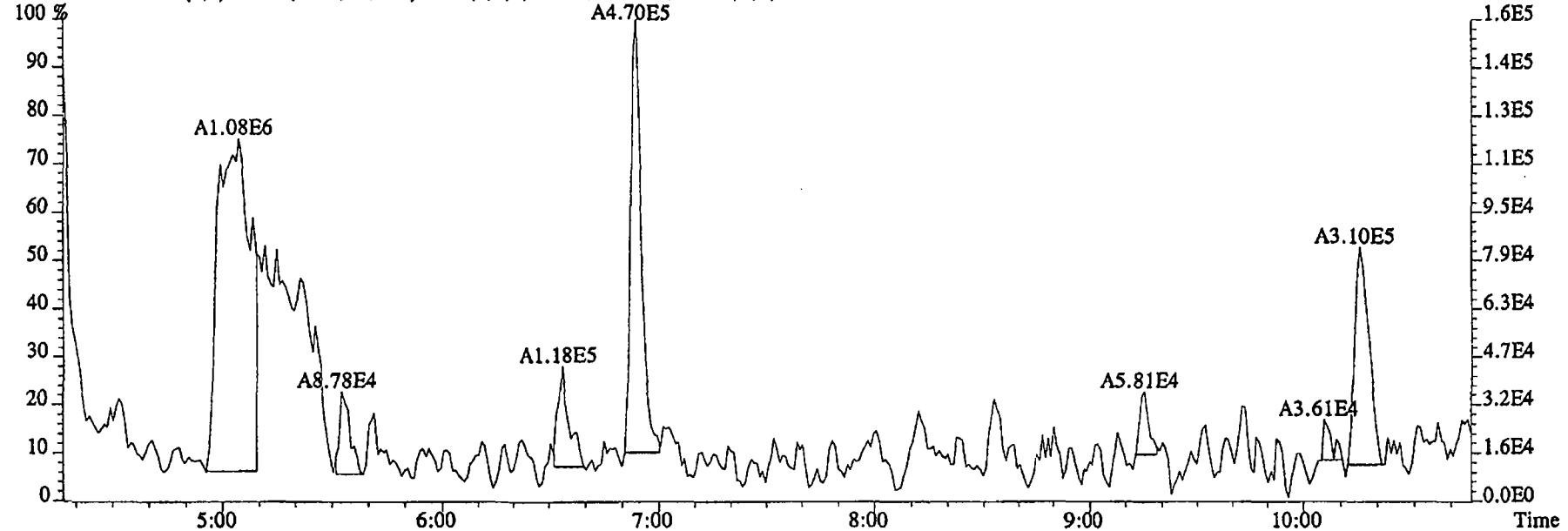


Run text: GX3LR-1-AA      Sample text: GX3LR-1-AA :G4L010311-1  
 Run #9    Filename: 03DE04B5SP    S: 11    I: 1    Results: 03DE045SP1625  
 Acquired: 4-DEC-04    01:24:25      Processed: 6-DEC-04    13:29:33  
 Run: 03DE04B5SP      Analyte: 1625      Cal: 16251203045SP  
 Factor 1: 1.000      Factor 2: 1.000      Sample size: 0.940    L

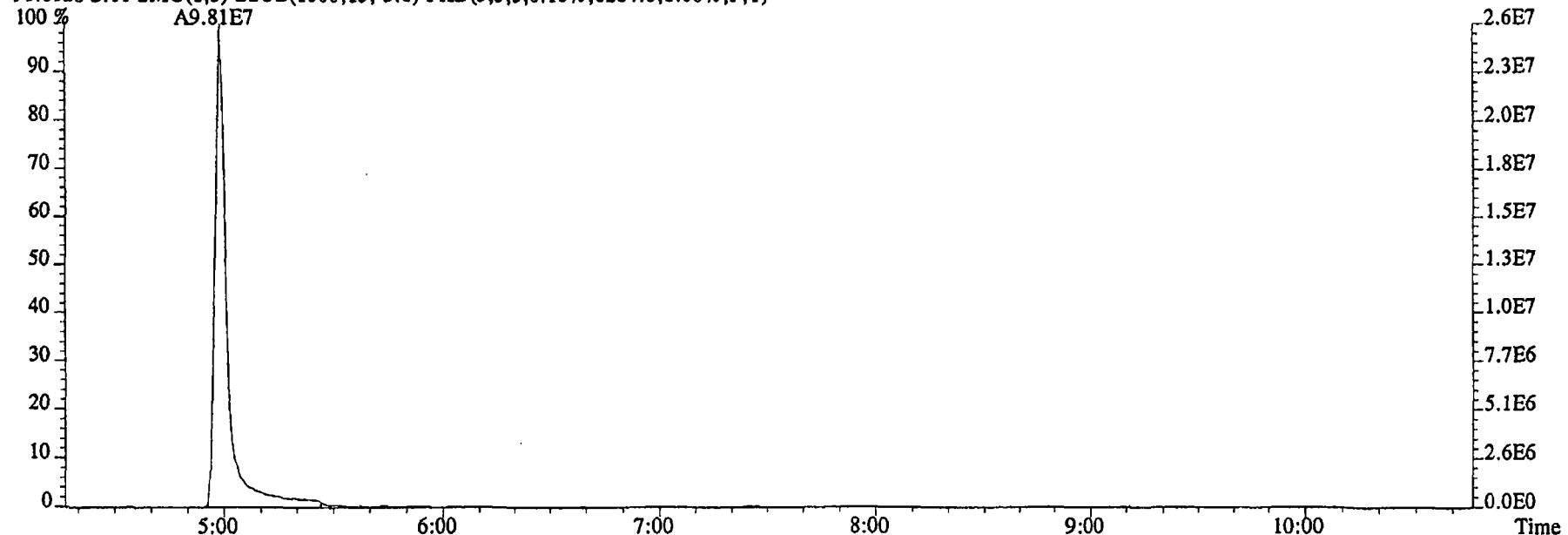
Name	Resp	RA	RT	RRF	Conc	ur	EDL	Rec	M
2-Chloropyridine	100454000		10:56	-	355.60		-	-	n
D8-1,4-Dioxane	98139000		4:59	0.99	210.57		0.12	19.8	n
1,4-Dioxane	1079410		5:04	1.59	7.35		1.45	-	n
D5-123-TriChloroPropane	172851000		9:53	4.02	91.00		0.04	85.5	n
1,2,3-TriChloroPropane	145302		9:56	0.39	8.23	45.0	0.33	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*		-	-	n
D6-NDMA	33441500		10:02	2.49	28.48		0.03	26.8	n
NDMA	475475		10:02	1.10	1.37	22.0	0.98	-	n
2-Chloropyridine	315950000		10:57	-	350.03		-	-	n

12-13-14  
C

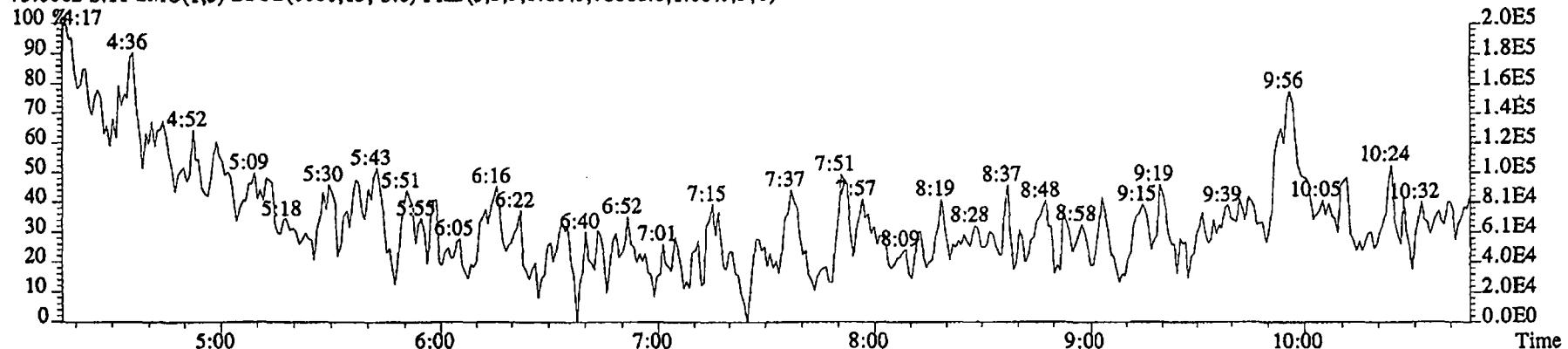
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:24:25 GC EI+ Voltage SIR 70SE  
Sample#11 Text:GX3LR-1-AA :G4L010311-1 Exp:NDMAVOA  
88.0524 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,18508.0,1.00%,F,T)



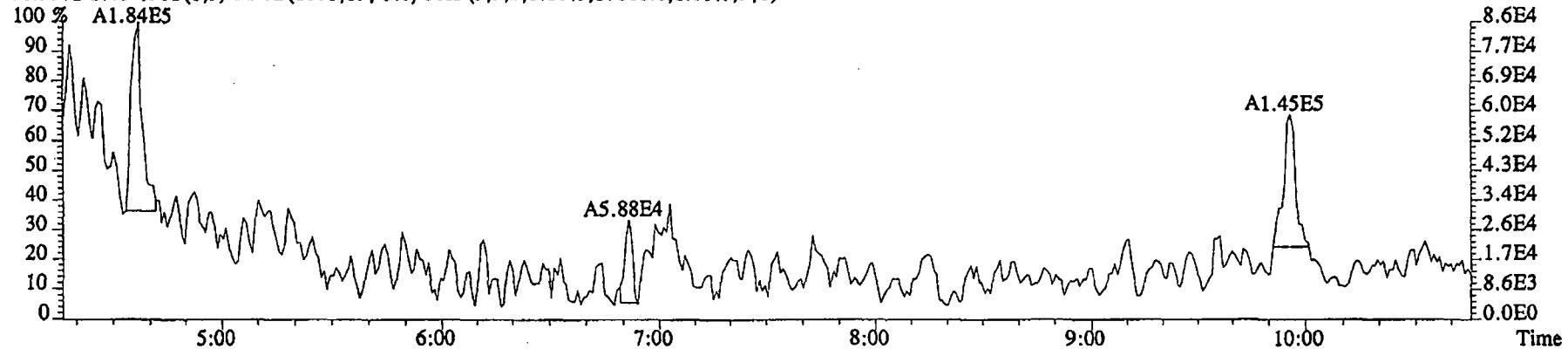
96.1026 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6284.0,1.00%,F,T)



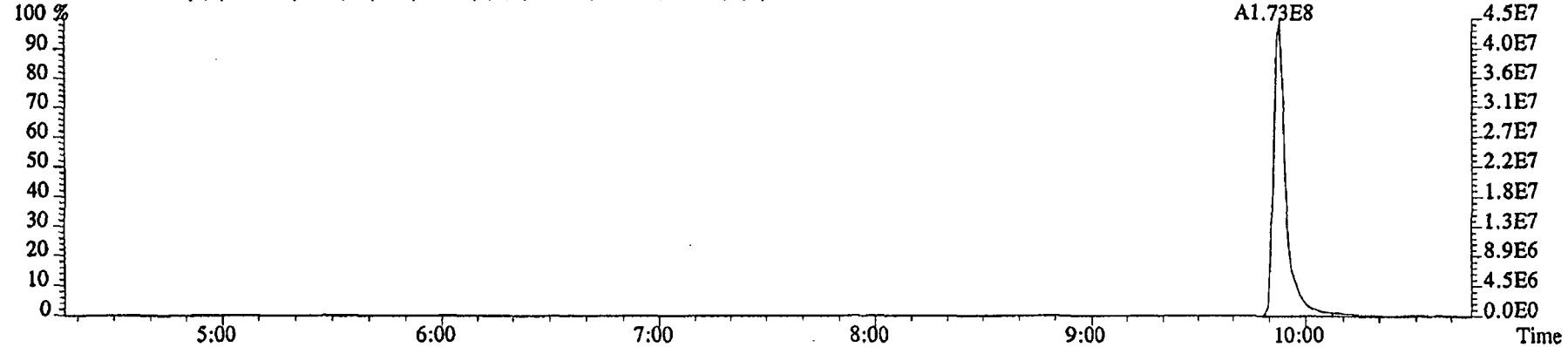
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:24:25 GC EI+ Voltage SIR 70SE  
 Sample#11 Text:GX3LR-1-AA :G4L010311-1 Exp:NDMAVOA  
 75.0002 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,78088.0,1.00%,F,T)



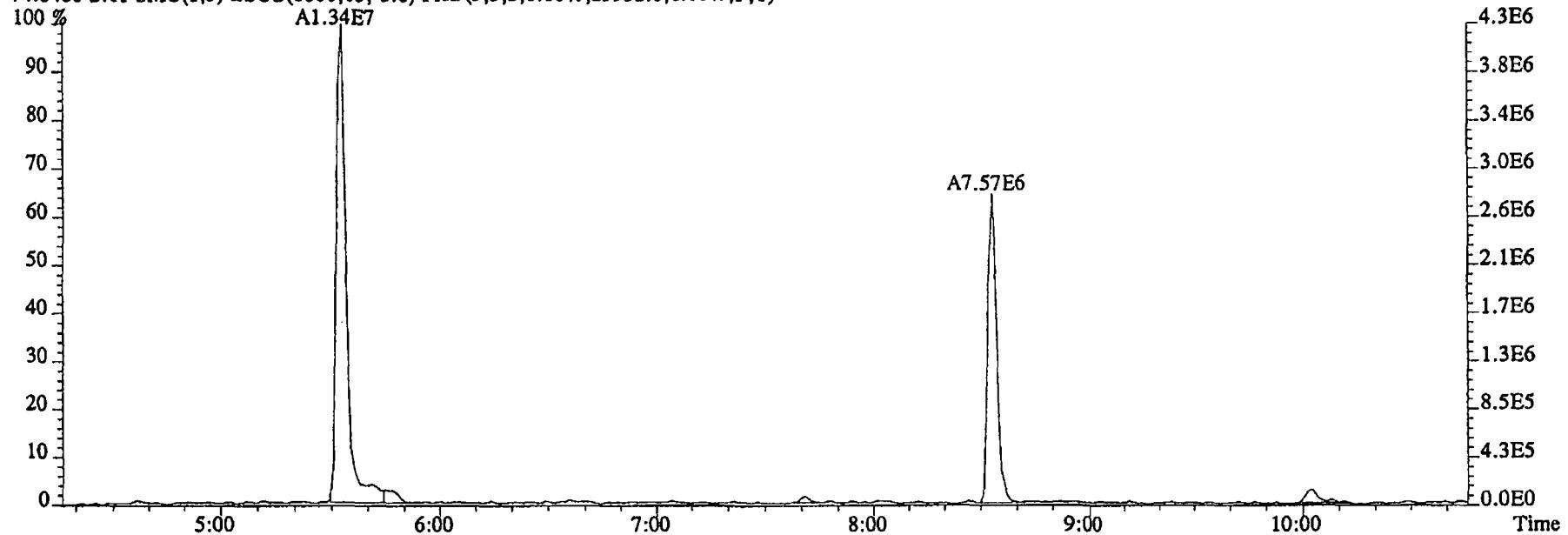
76.9972 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,17868.0,1.00%,F,T)



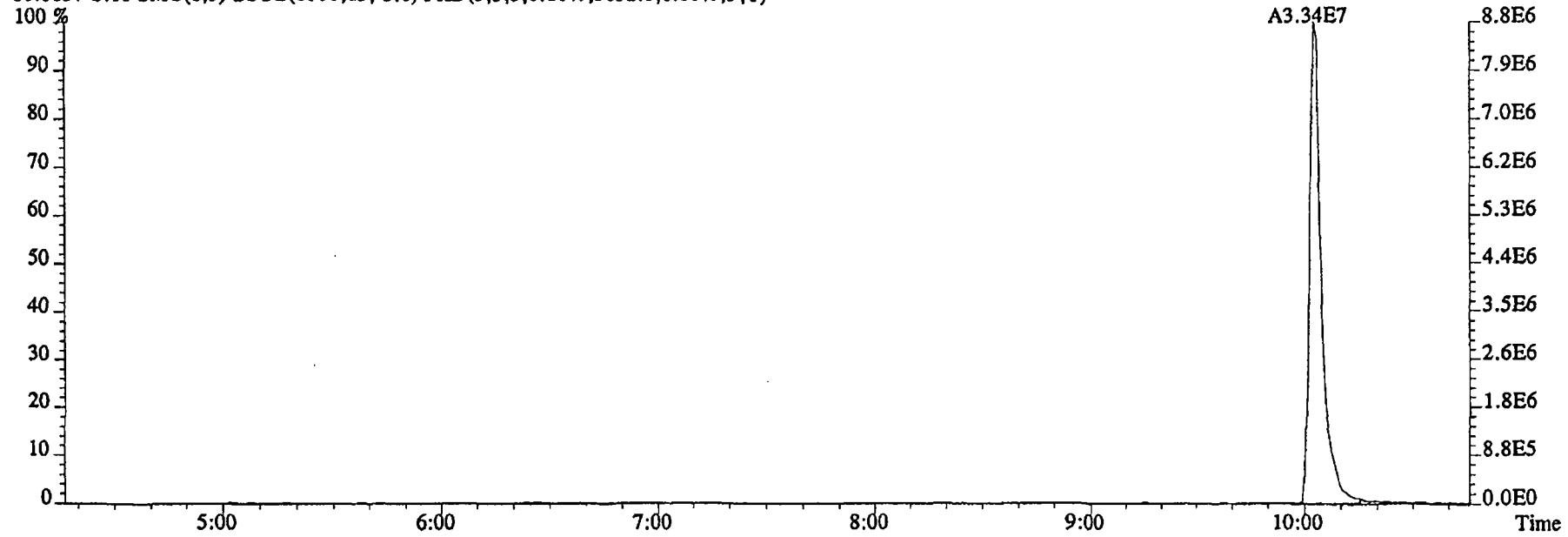
79.0253 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8108.0,1.00%,F,T)



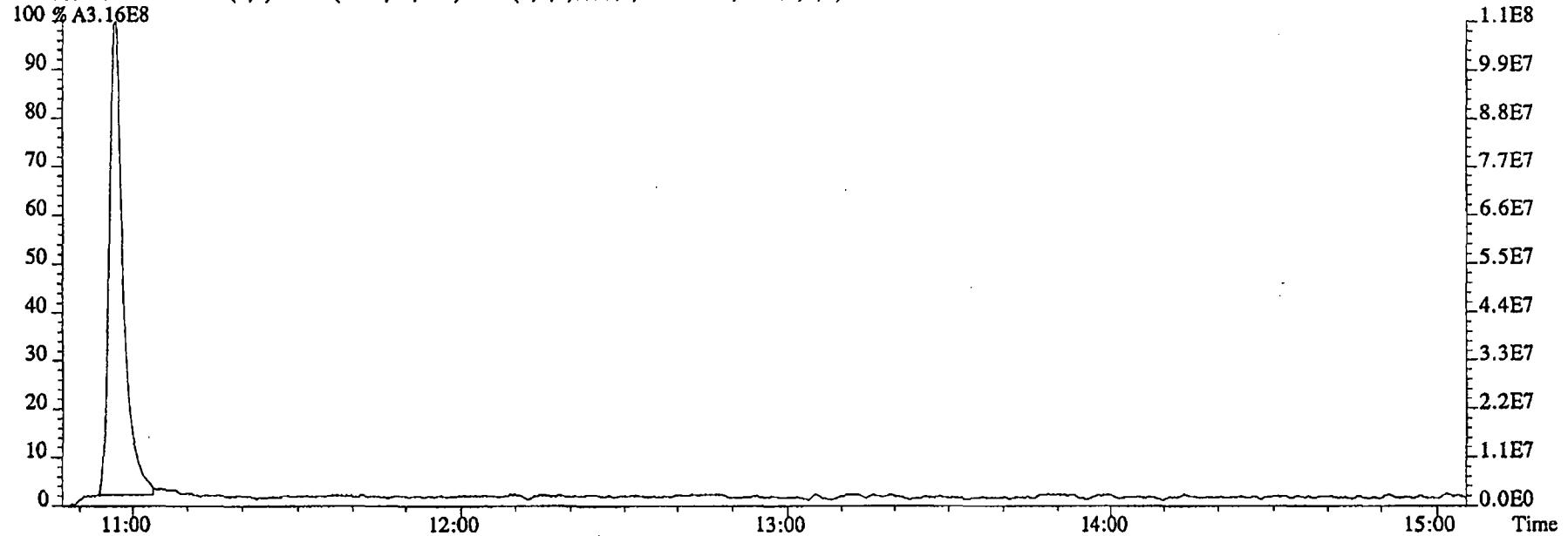
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:24:25 GC EI+ Voltage SIR 70SE  
Sample#11 Text:GX3LR-1-AA :G4L010311-1 Exp:NDMAVOA  
74.0480 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,29932.0,1.00%,F,T)



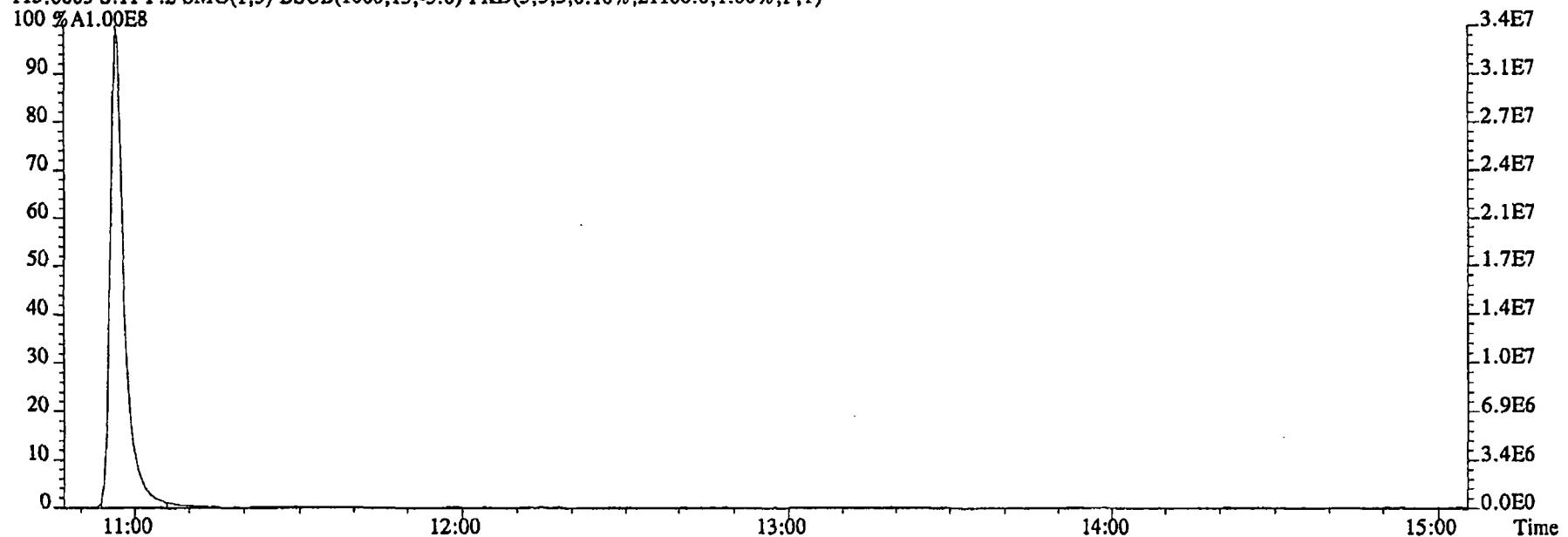
80.0857 S:11 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3652.0,1.00%,F,T)



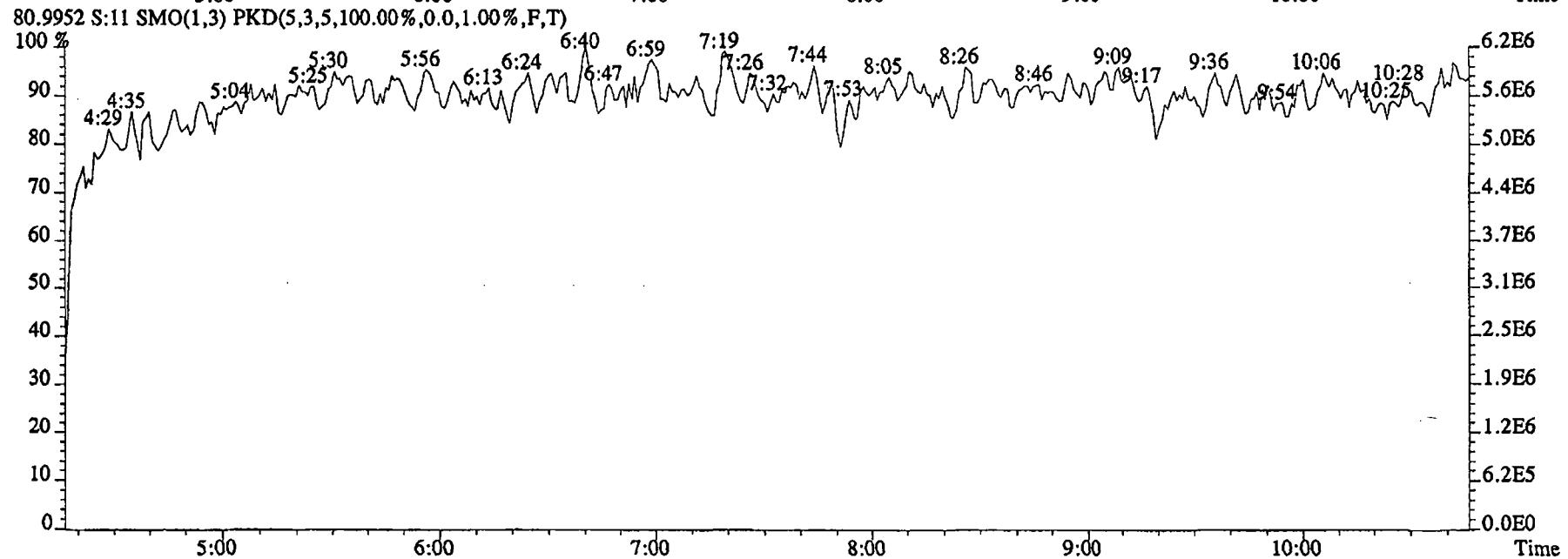
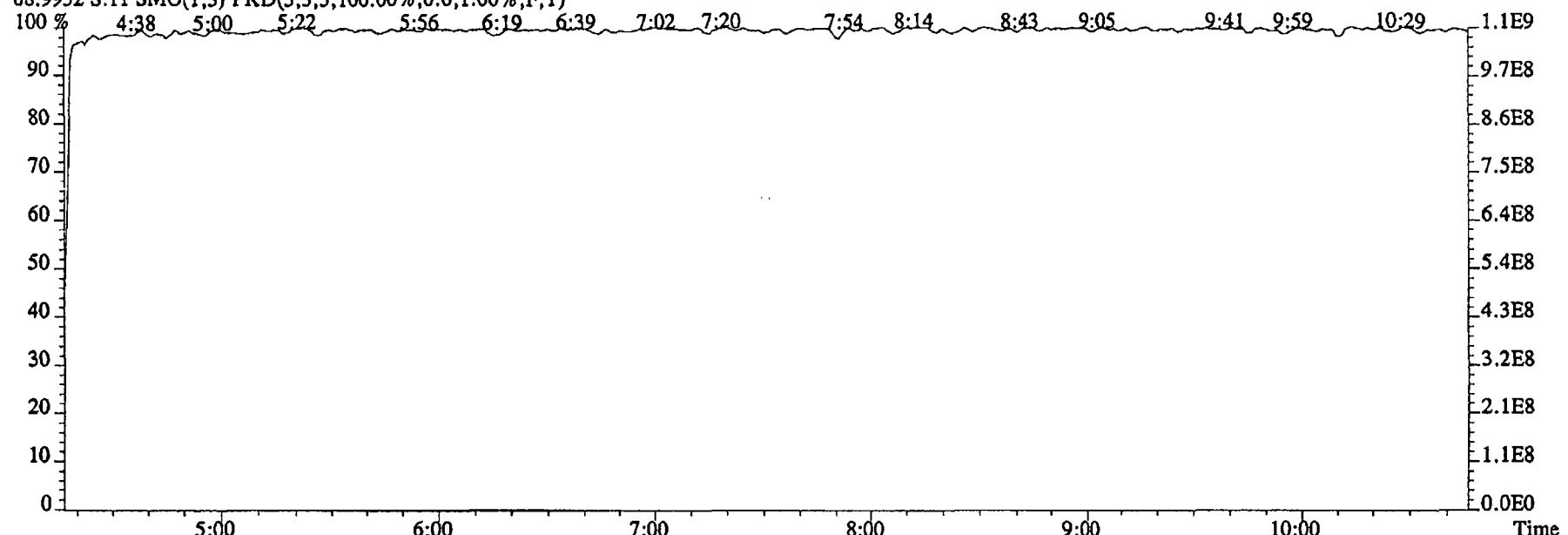
File:03DE04B5SP #1-602 Acq: 4-DEC-2004 01:24:25 GC EI+ Voltage SIR 70SE  
Sample#11 Text:GX3LR-1-AA :G4L010311-1 Exp:NDMAVOA  
113.0032 S:11 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2626008.0,1.00%,F,T)  
100 % A3.16E8



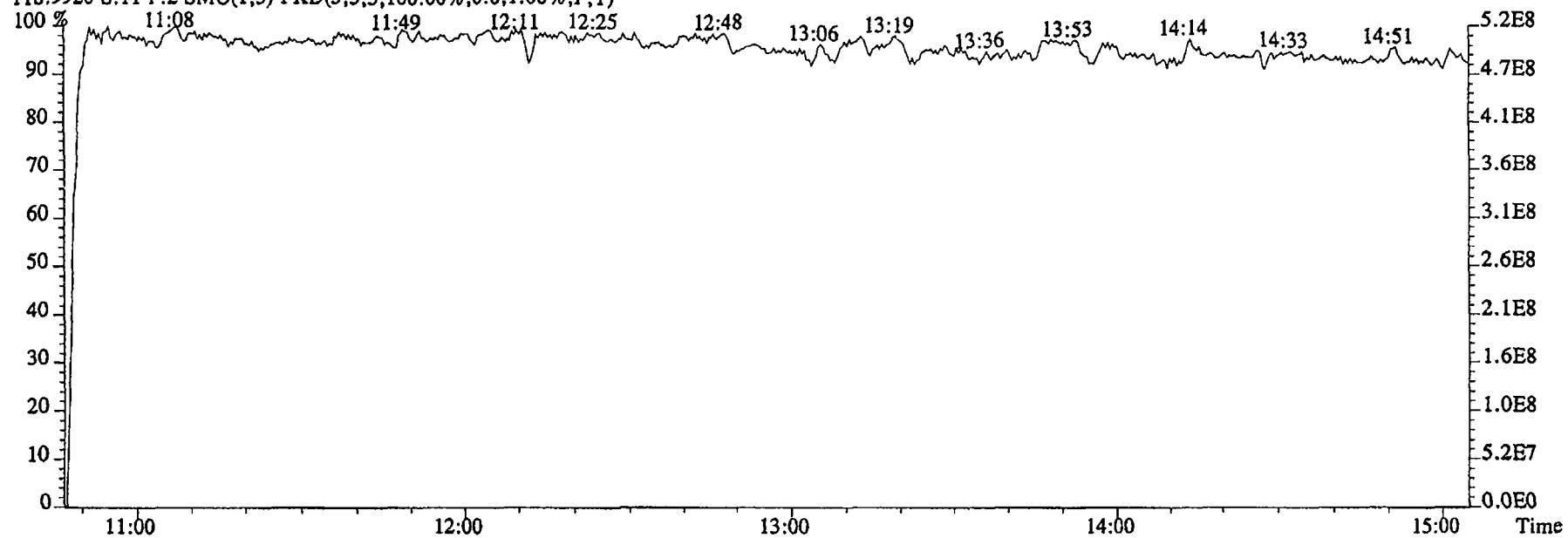
115.0003 S:11 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,21100.0,1.00%,F,T)  
100 % A1.00E8



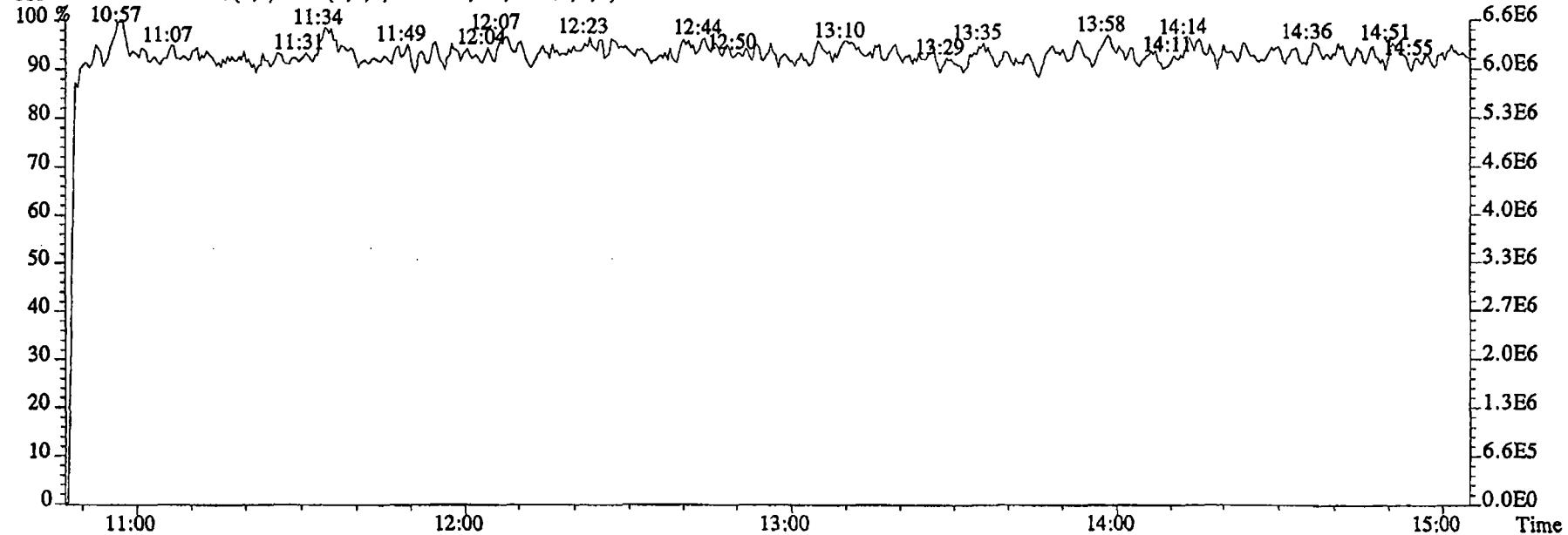
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:24:25 GC EI+ Voltage SIR 70SE  
Sample#11 Text:GX3LR-1-AA :G4L010311-1 Exp:NDMAVOA  
68.9952 S:11 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-602 Acq: 4-DEC-2004 01:24:25 GC EI+ Voltage SIR 70SE  
Sample#11 Text:GX3LR-1-AA :G4L010311-1 Exp:NDMAVOA  
118.9920 S:11 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:11 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

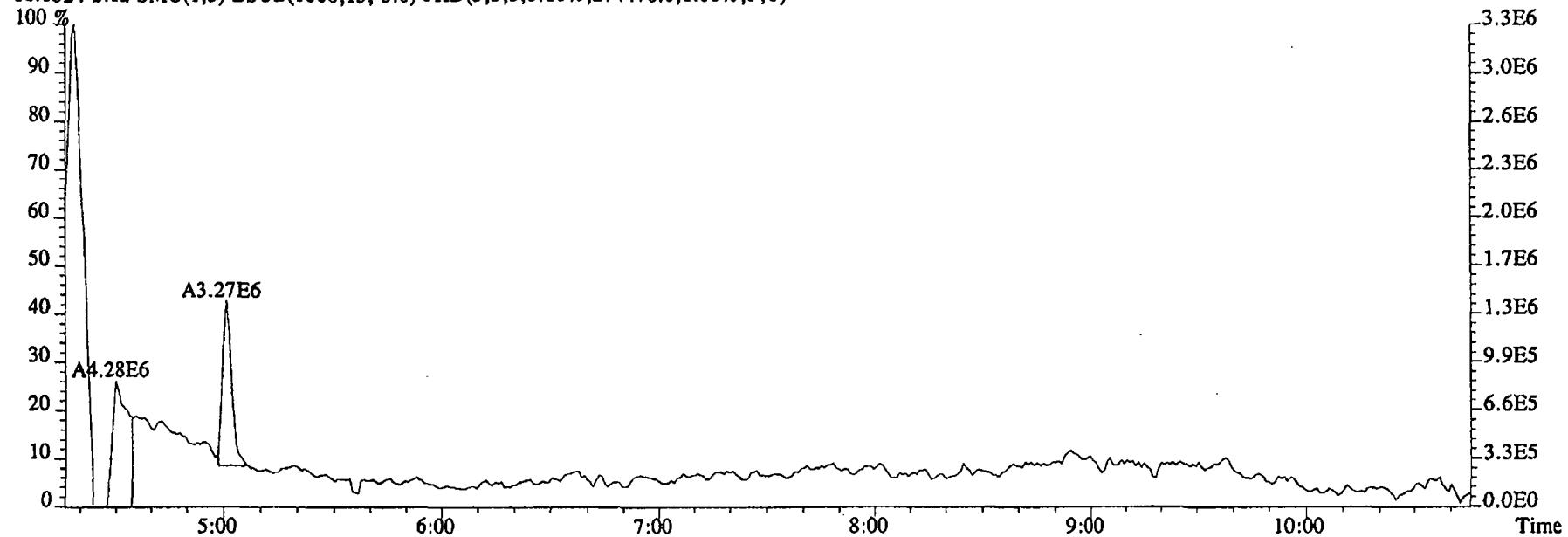


Run text: GX3LW-1-AC      Sample text: GX3LW-1-AC :G4L010311-2  
 Run #10 Filename: 03DE04B5SP S: 12 I: 1 Results: 03DE045SP1625  
 Acquired: 4-DEC-04 01:44:47 Processed: 6-DEC-04 13:29:34  
 Run: 03DE04B5SP Analyte: 1625 Cal: 16251203045SP  
 Factor 1: 1.000 Factor 2: 1.000 Sample size: 0.979 L

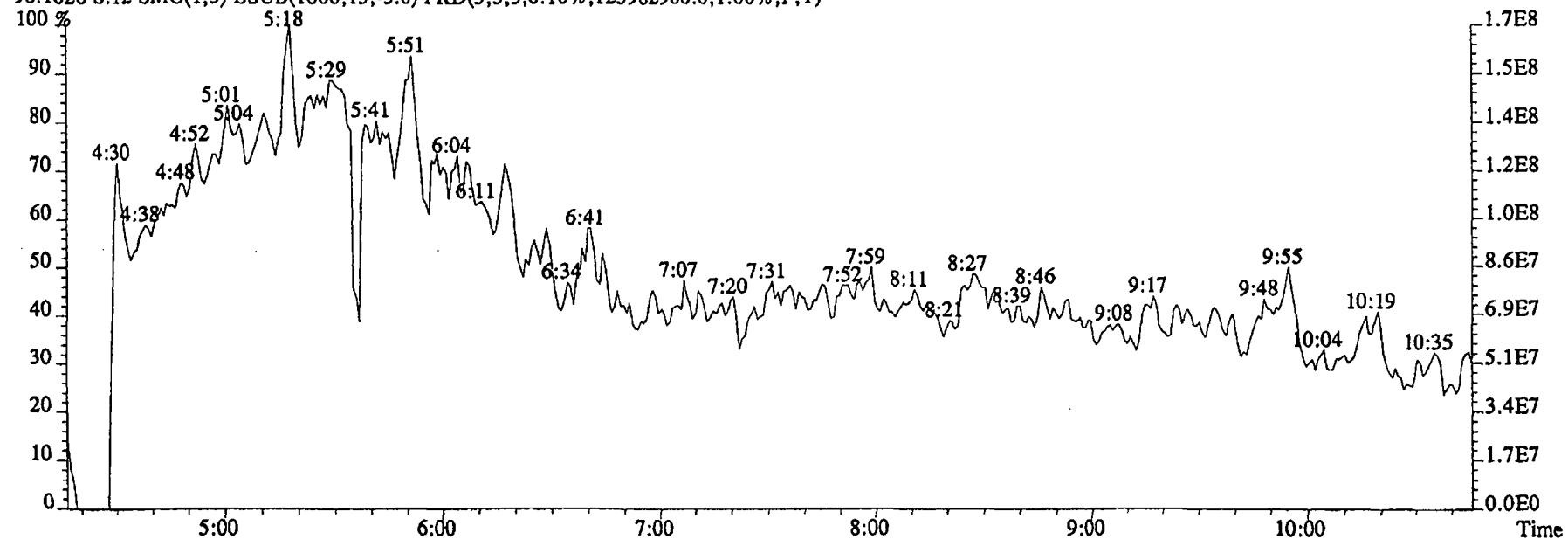
Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
2-Chloropyridine	16167400		10:58	-	54.95	-	-	n
D8-1,4-Dioxane	*		Not Fnd	0.99	*	12500.79	*	n
1,4-Dioxane	3266330		5:01	1.59	*	*	-	n
D5-123-TriChloroPropane	27922500		9:54	4.02	87.70	58.62	85.9	n
1,2,3-TriChloroPropane	*		Not Fnd	0.39	*	<del>179.74</del> <del>7.25</del>	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*	-	-	n
D6-NDMA	6800070		10:02	2.49	34.54	72.38	33.8	y
NDMA	*		Not Fnd	1.10	*	<del>83.00</del> <del>4.64</del>	-	n
2-Chloropyridine	55405600		10:58	-	58.94	-	-	n

12/13/01  
d

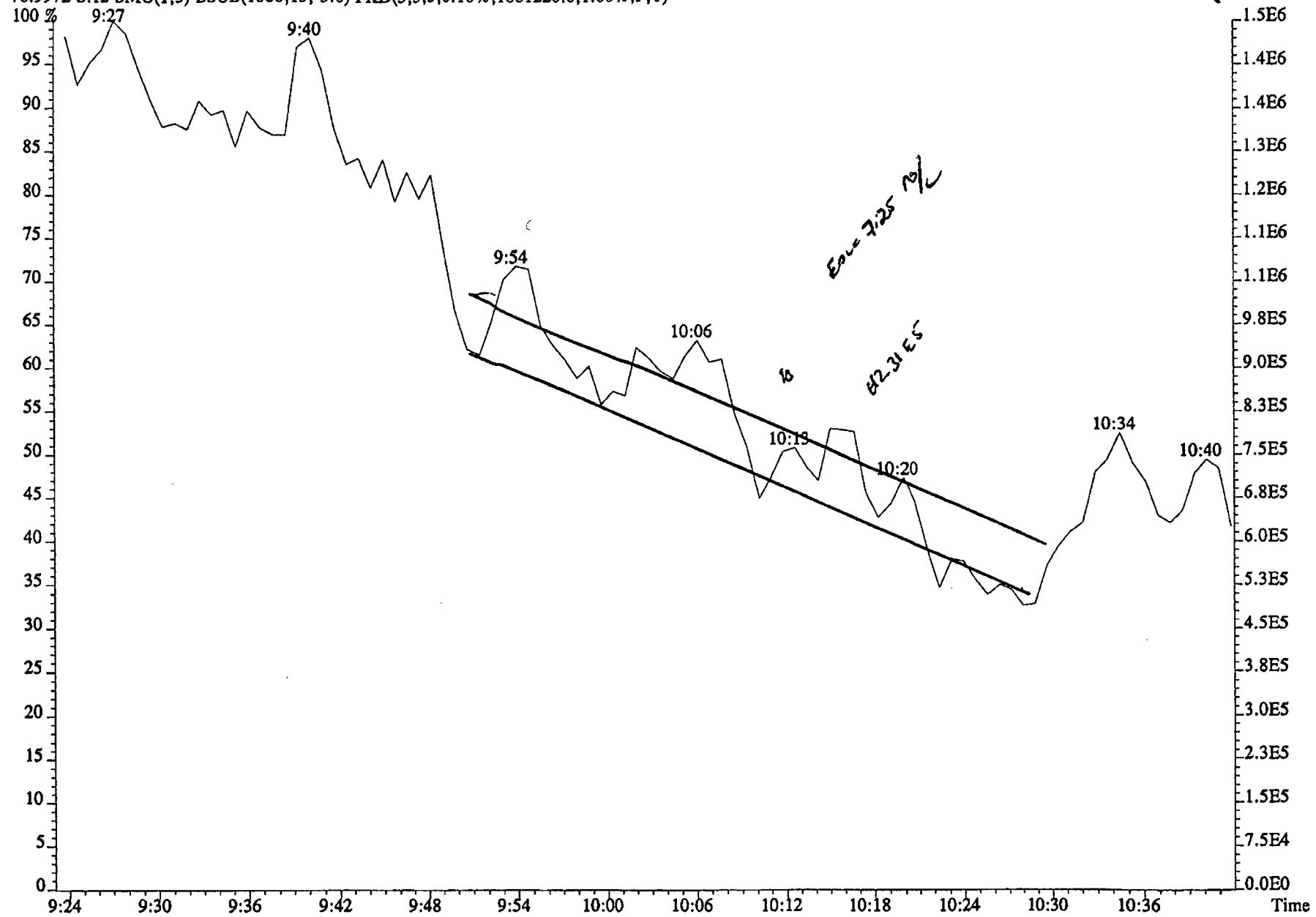
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC El+ Voltage SIR 70SE  
 Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
 88.0524 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,274476.0,1.00%,F,T)



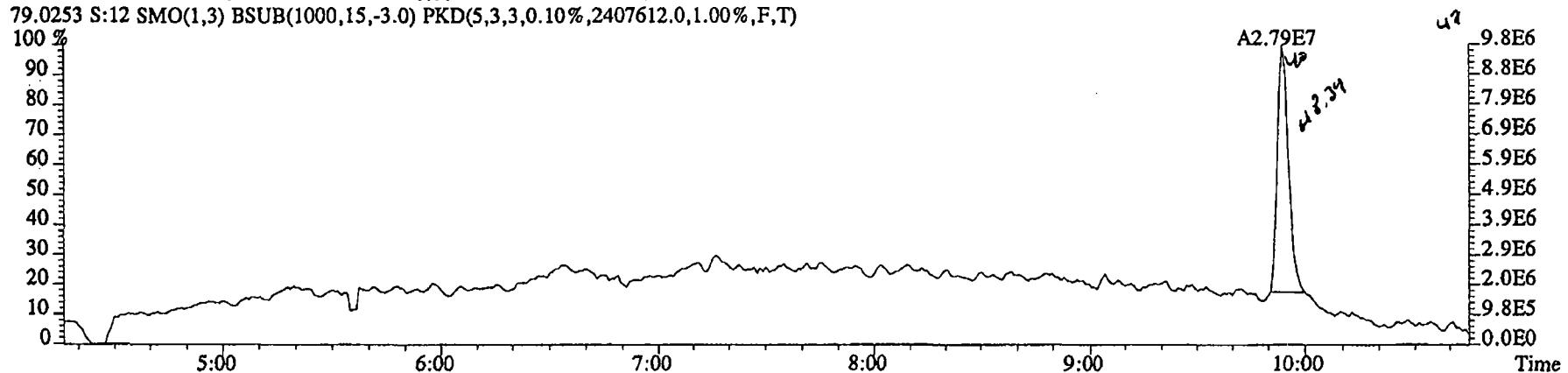
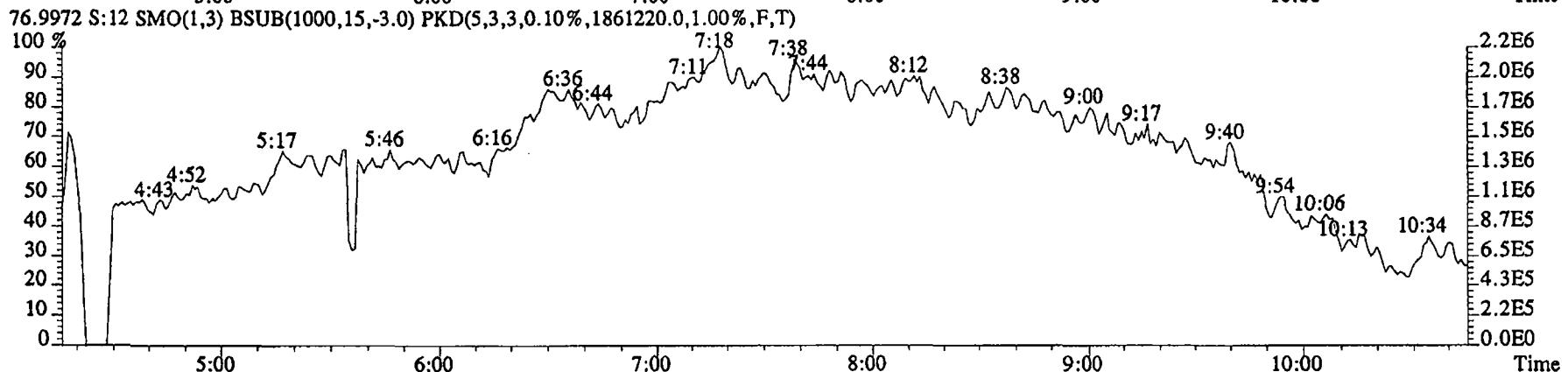
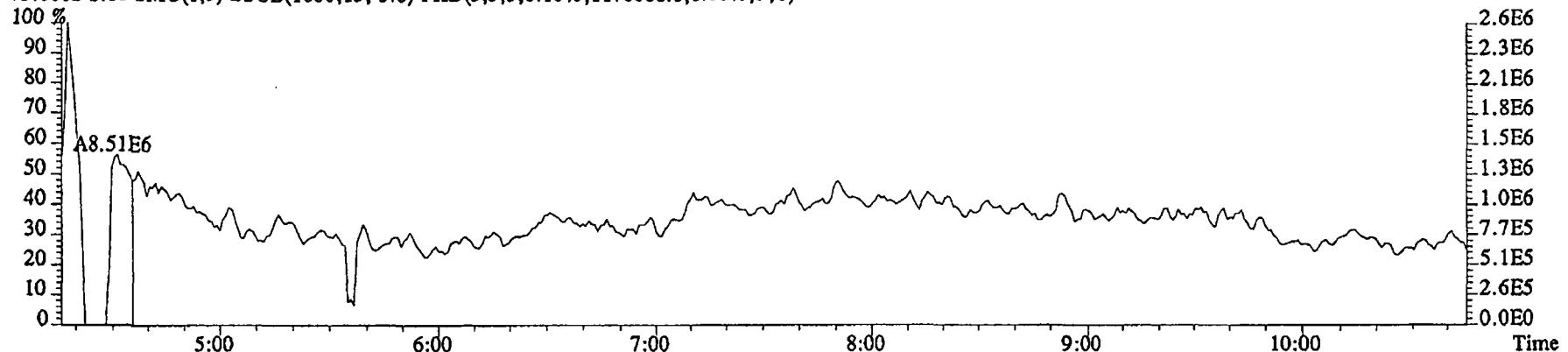
96.1026 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,125982960.0,1.00%,F,T)



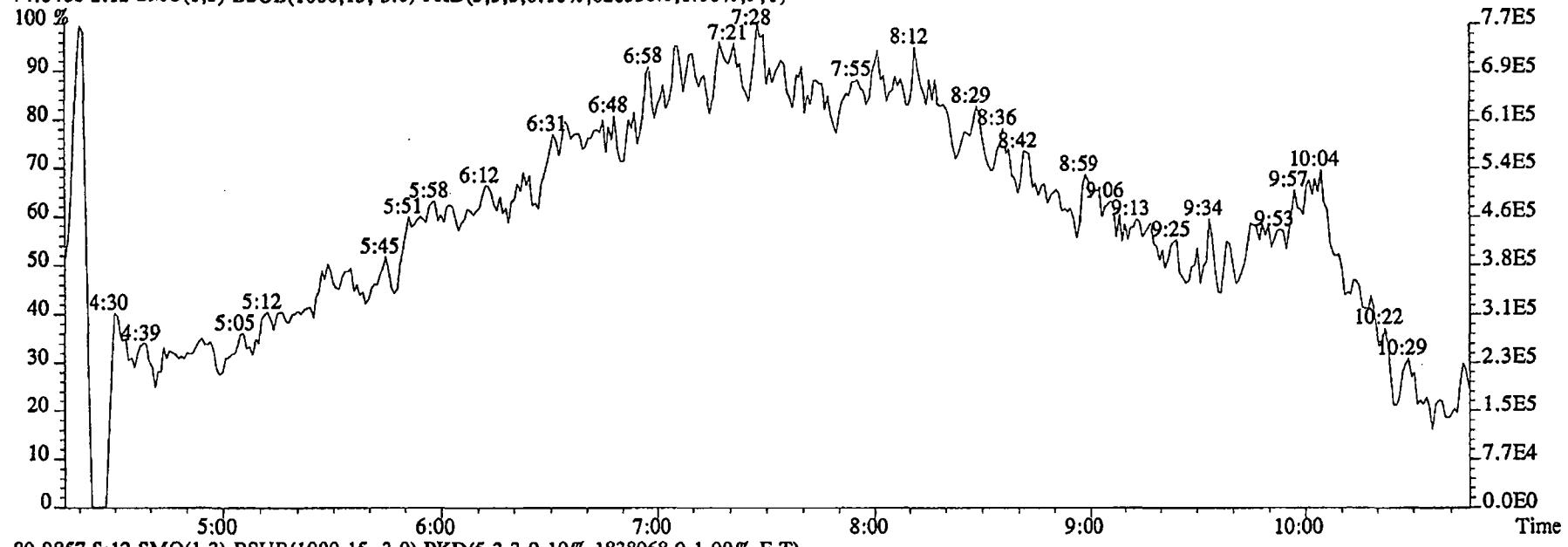
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC EI+ Voltage SIR 70SE  
 Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
 76.9972 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1861220.0,1.00%,F,T)



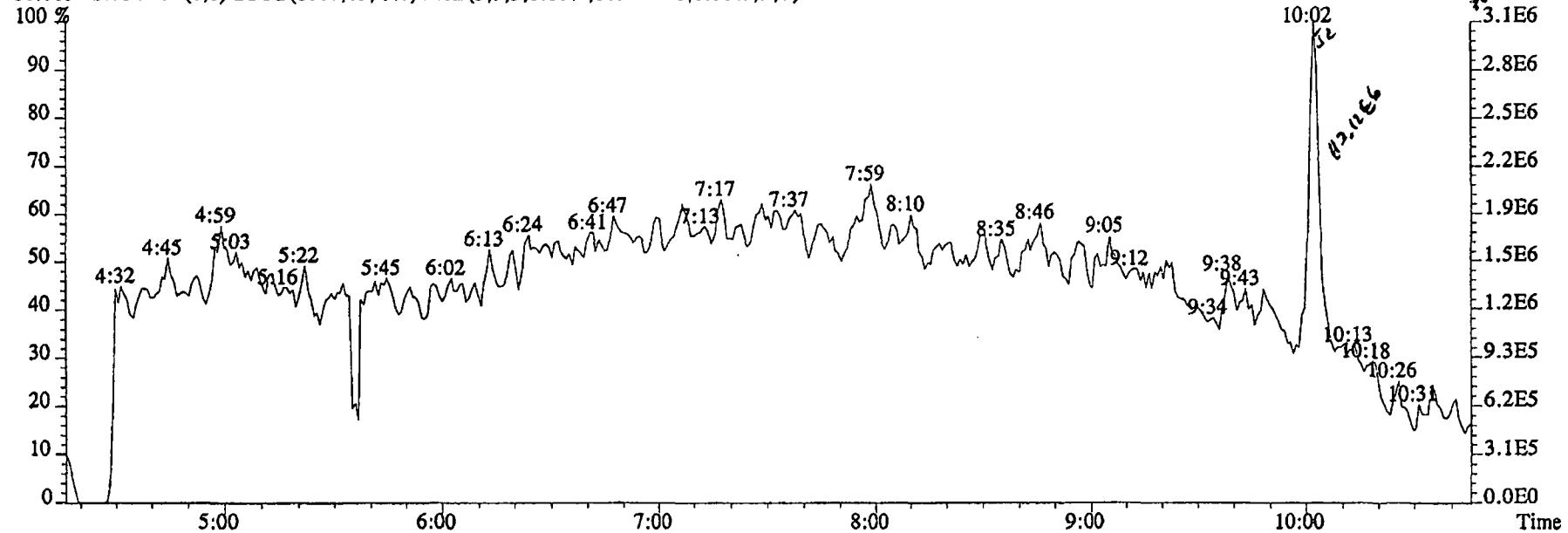
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC El+ Voltage SIR 70SE  
 Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
 75.0002 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1170068.0,1.00%,F,T)



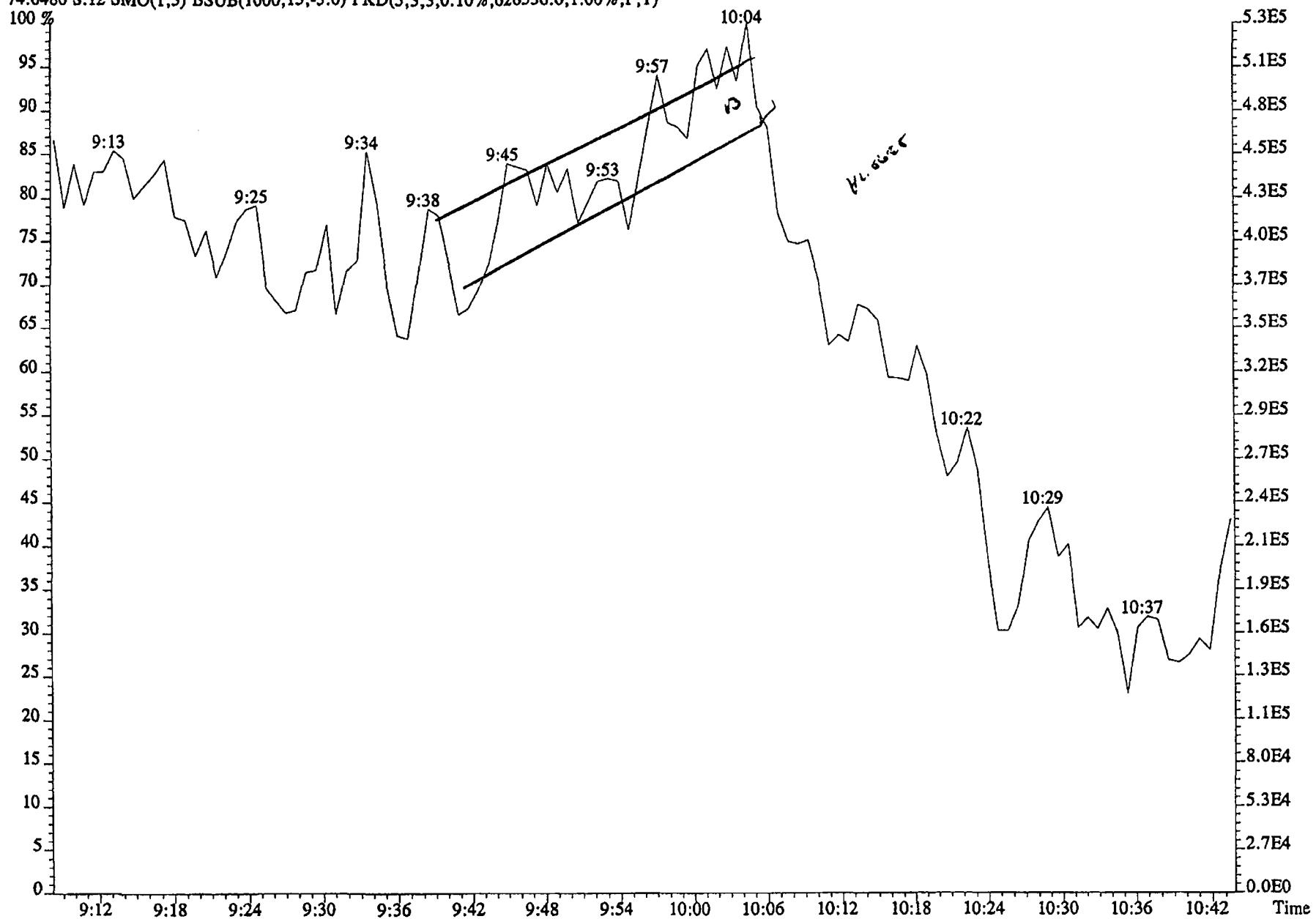
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC EI+ Voltage SIR 70SE  
 Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
 74.0480 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,626536.0,1.00%,F,T)



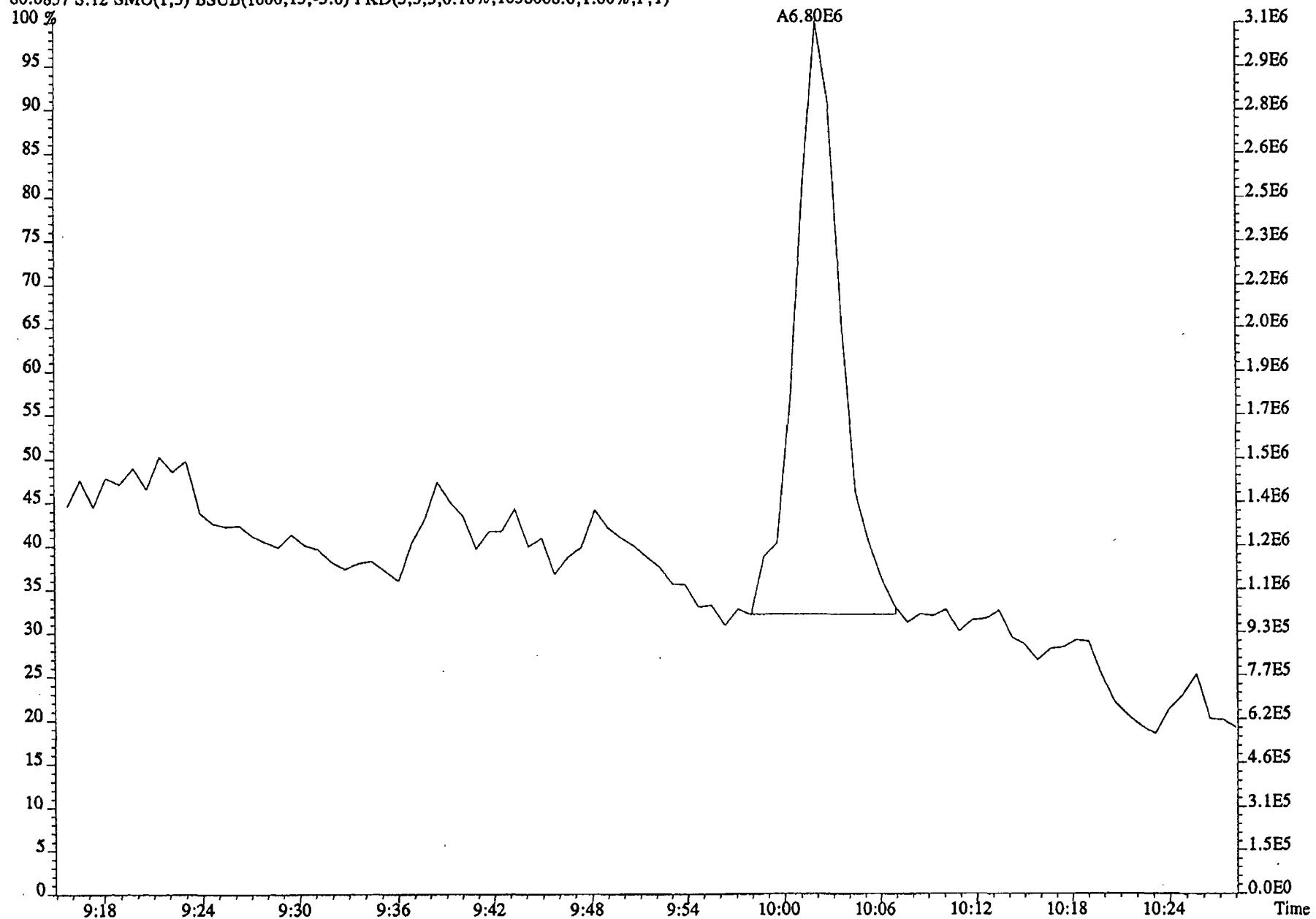
80.0857 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1838068.0,1.00%,F,T)



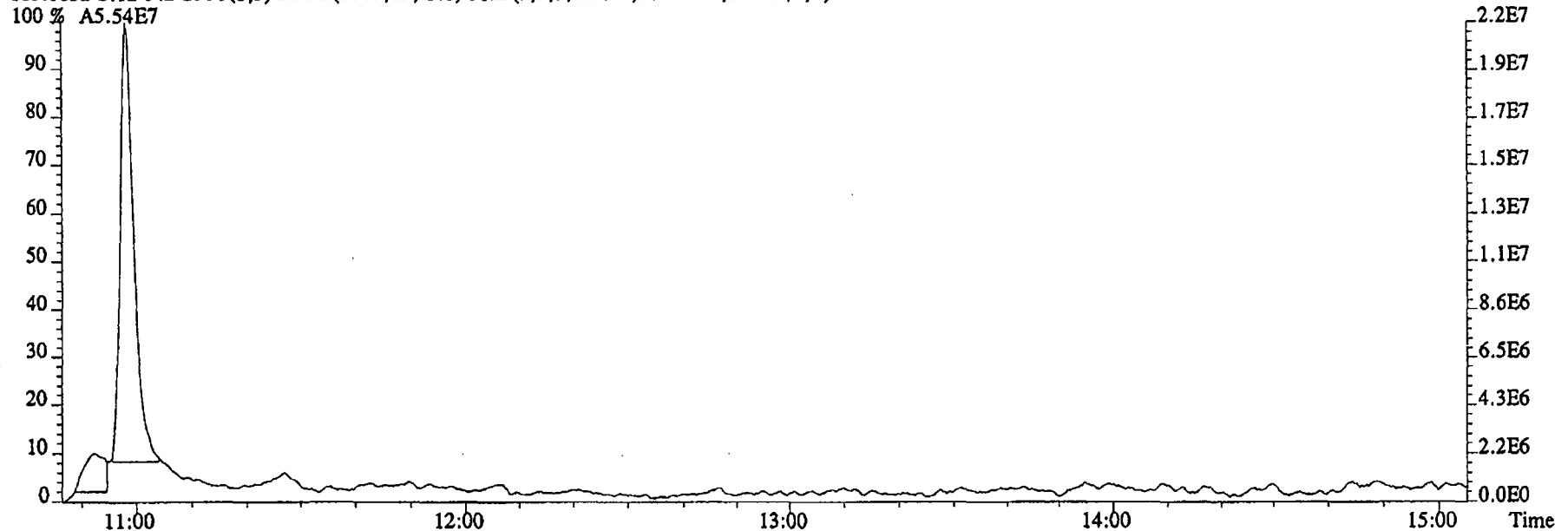
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC EI+ Voltage SIR 70SE  
Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
74.0480 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,626536.0,1.00%,F,T)



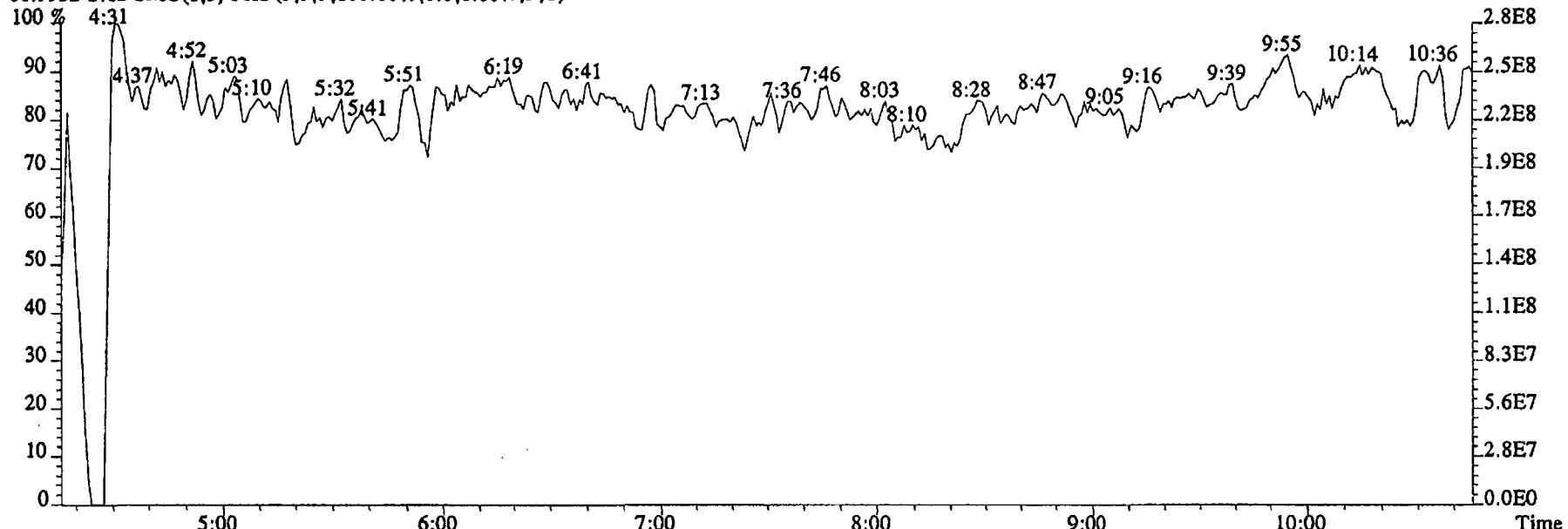
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC EI+ Voltage SIR 70SE  
Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
80.0857 S:12 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1838068.0,1.00%,F,T)



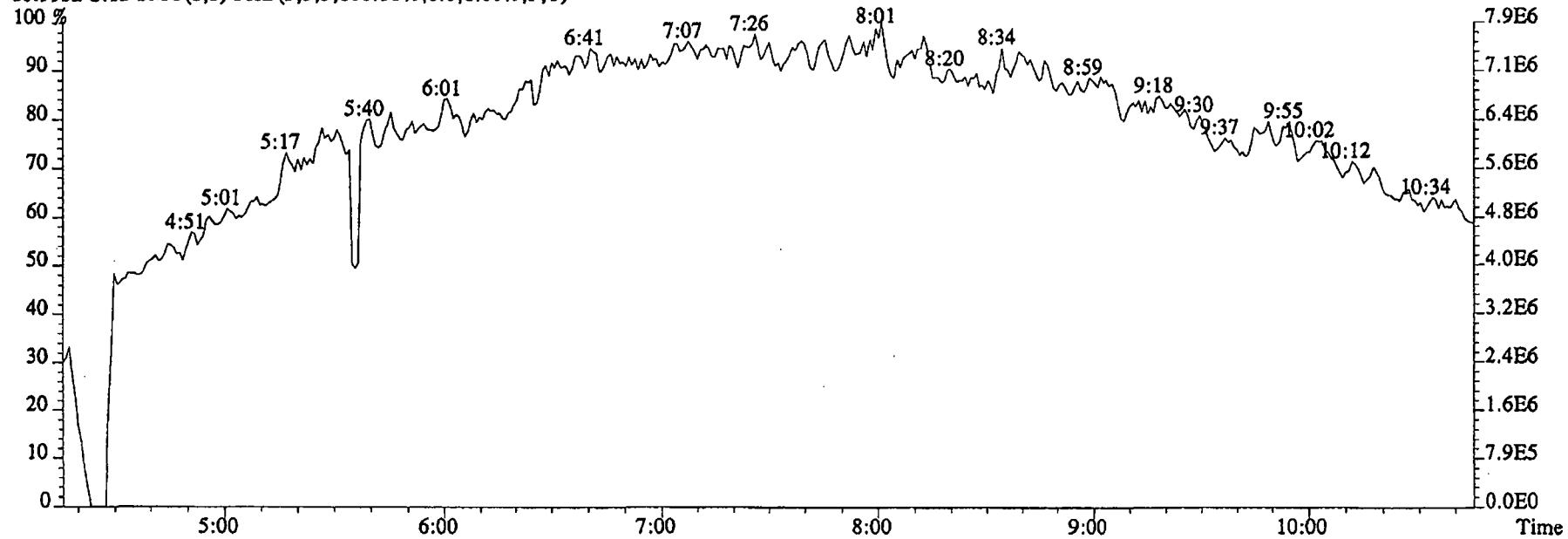
File:03DE04B5SP #1-603 Acq: 4-DEC-2004 01:44:47 GC EI+ Voltage SIR 70SE  
Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
113.0032 S:12 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,664744.0,1.00%,F,T)



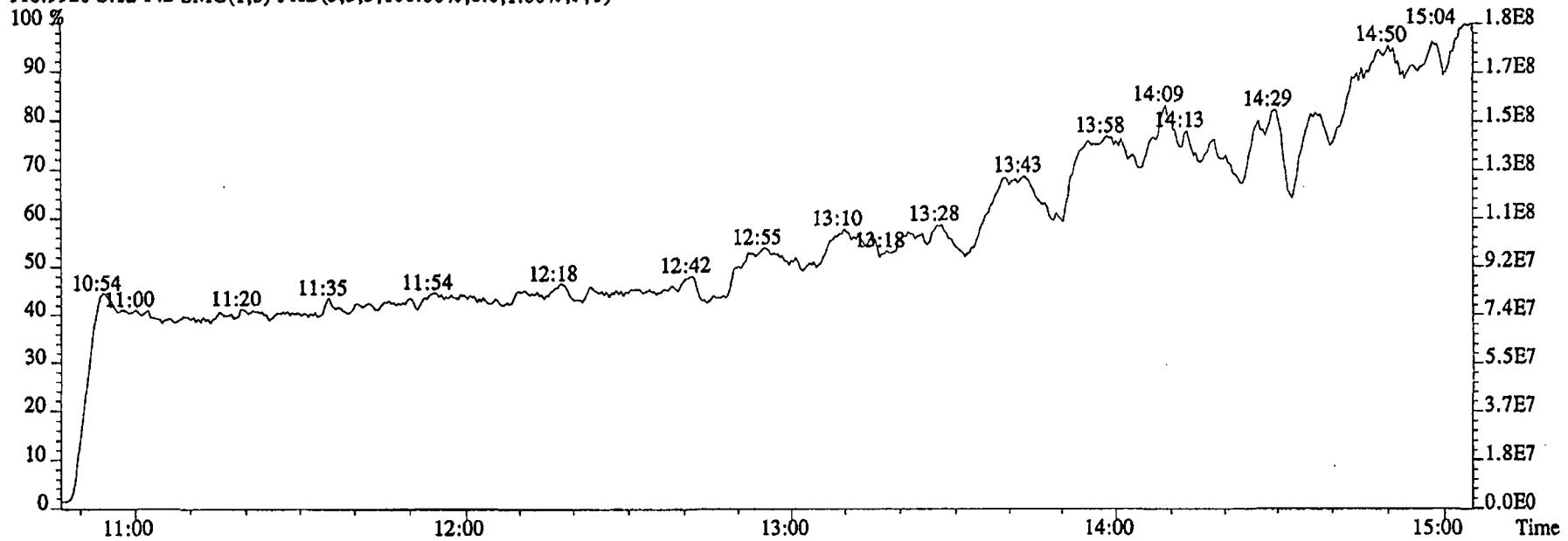
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 01:44:47 GC El+ Voltage SIR 70SE  
Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
68.9952 S:12 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



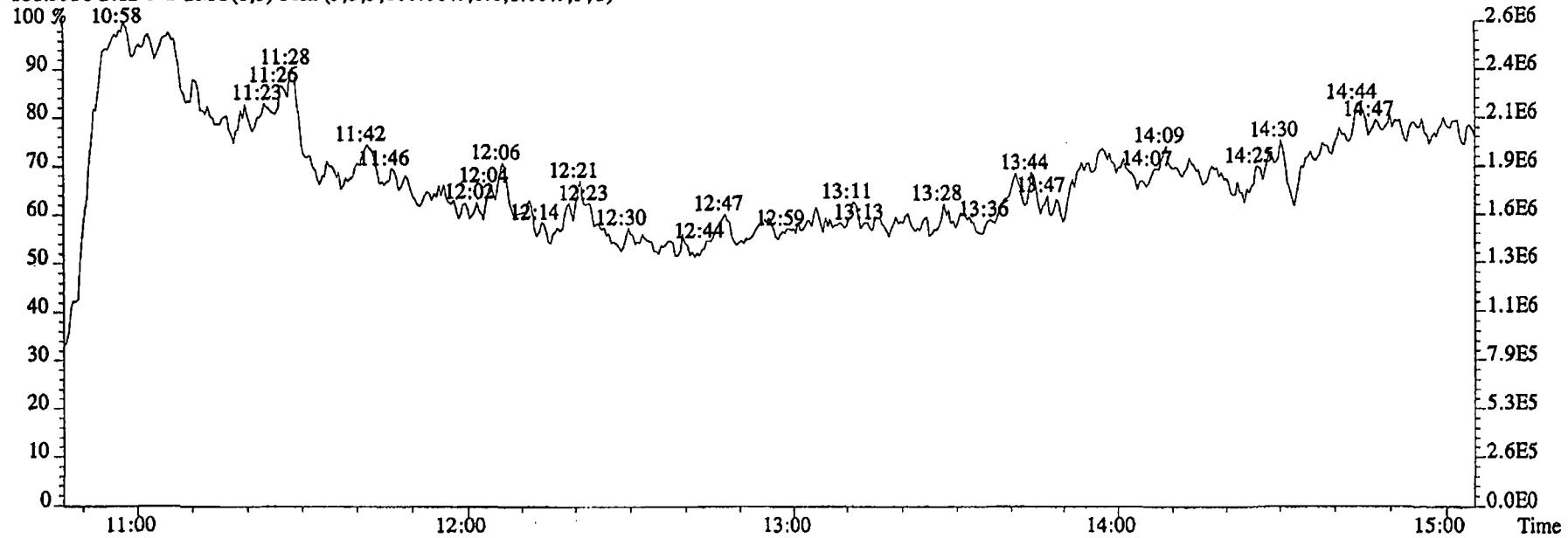
80.9952 S:12 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-603 Acq: 4-DEC-2004 01:44:47 GC El + Voltage SIR 70SE  
 Sample#12 Text:GX3LW-1-AC :G4L010311-2 Exp:NDMAVOA  
 118.9920 S:12 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:12 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



## Quantitation Summary

STL

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Run text: GX3LW-1-AFS      Sample text: GX3LW-1-AFS :G4L010311-2MS  
 Run #11 Filename: 03DE04B5SP S: 13 I: 1 Results: 03DE045SP1625  
 Acquired: 4-DEC-04 02:05:08      Processed: 6-DEC-04 13:29:34  
 Run: 03DE04B5SP Analyte: 1625      Cal: 16251203045SP  
 Factor 1: 1.000      Factor 2: 1.000      Sample size: 0.990 L

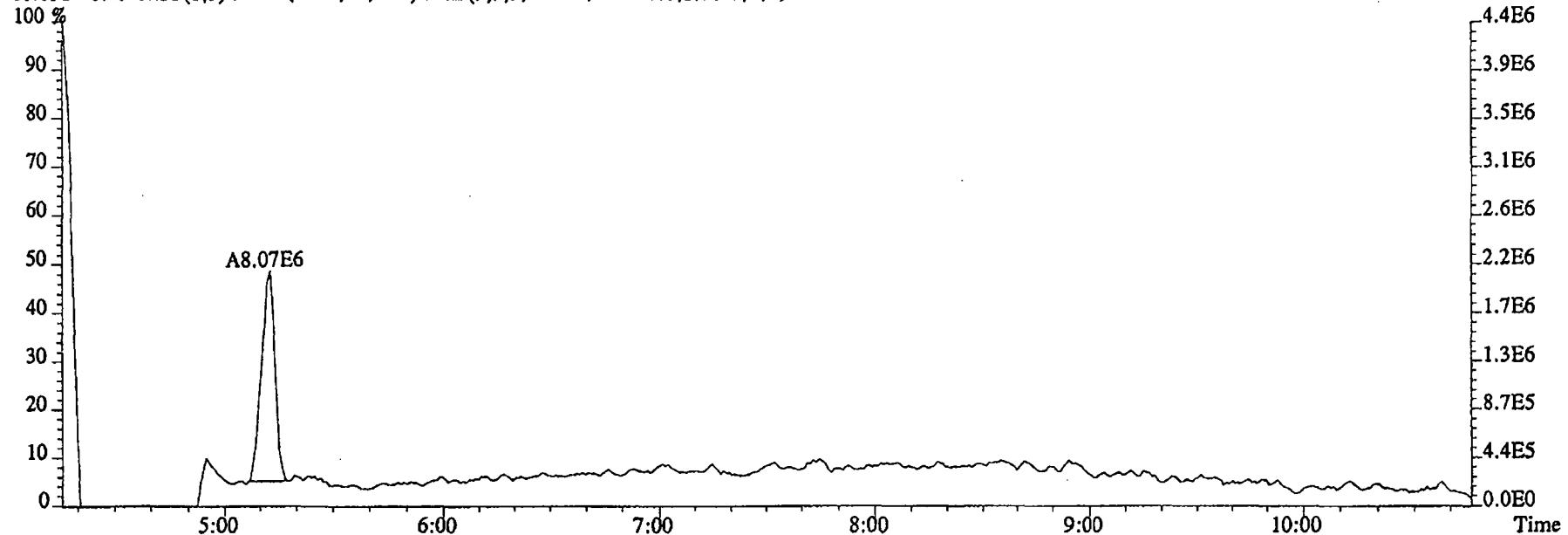
Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
2-Chloropyridine	25523300		11:00	-	85.79	-	-	n
D8-1,4-Dioxane	7533180000		4:55	0.99	60401.81	12929.60	5979	n
1,4-Dioxane	*		Not Fnd	1.59	*	0.62	-	n
D5-123-TriChloroPropane	36103600		9:56	4.02	71.03	32.52	70.3	n
1,2,3-TriChloroPropane	11519600		9:59	0.39	82.37 ✓	147.99	-	y
1,2,3-TriChloroPropane	32260500		9:59	-	23.68	-	-	n
D6-NDMA	8557750		10:04	2.49	27.23	69.15	27.0	y
NDMA	6721930		10:04	1.10	72.03 /	72.21	-	n
2-Chloropyridine	86303900		11:00	-	90.78	-	-	n

12-13-04  
or

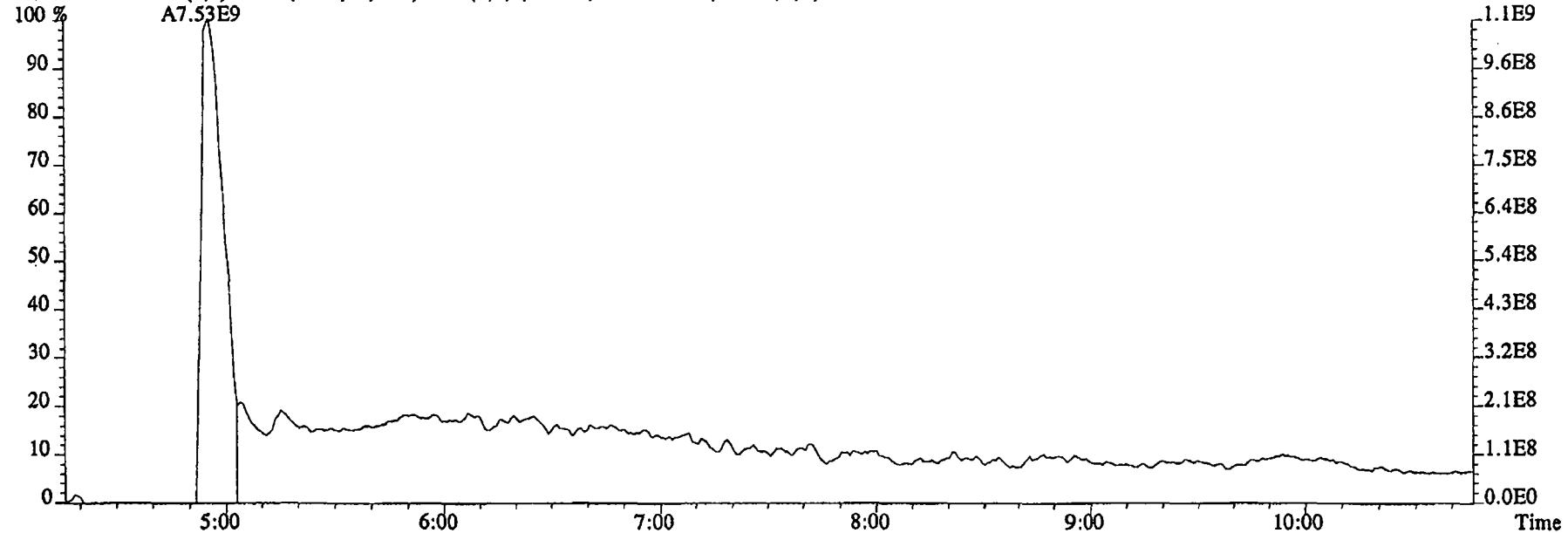
Run text: GX3LW-1-AFS      Sample text: GX3LW-1-AFS :G4L010311-2MS  
 Run #11 Filename: 03DE04B5SP S: 13 I: 1 Results: 03DE045SP1625  
 Acquired: 4-DEC-04 02:05:08 Processed: 6-DEC-04 13:29:34  
 Run: 03DE04B5SP Analyte: 1625 Cal: 16251203045SP  
 Factor 1: 1.000 Factor 2: 1.000 Sample size: 0.990 L

Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
2-Chloropyridine	25523300		11:00	-	85.79	-	-	n
D8-1,4-Dioxane	7533180000		4:55	0.99	60401.81	12929.60	5979	n
1,4-Dioxane	*		Not Fnd	1.59	*	0.62	-	n
D5-123-TriChloroPropane	36103600		9:56	4.02	71.03	32.52	70.3	n
1,2,3-TriChloroPropane	8835550		9:59	0.39	63.18	147.99	-	n
1,2,3-TriChloroPropane	32260500		9:59	-	23.68	-	-	n
D6-NDMA	8557750		10:04	2.49	27.23	69.15	27.0	y
NDMA	6721930		10:04	1.10	72.03	72.21	-	n
2-Chloropyridine	86303900		11:00	-	90.78	-	-	n

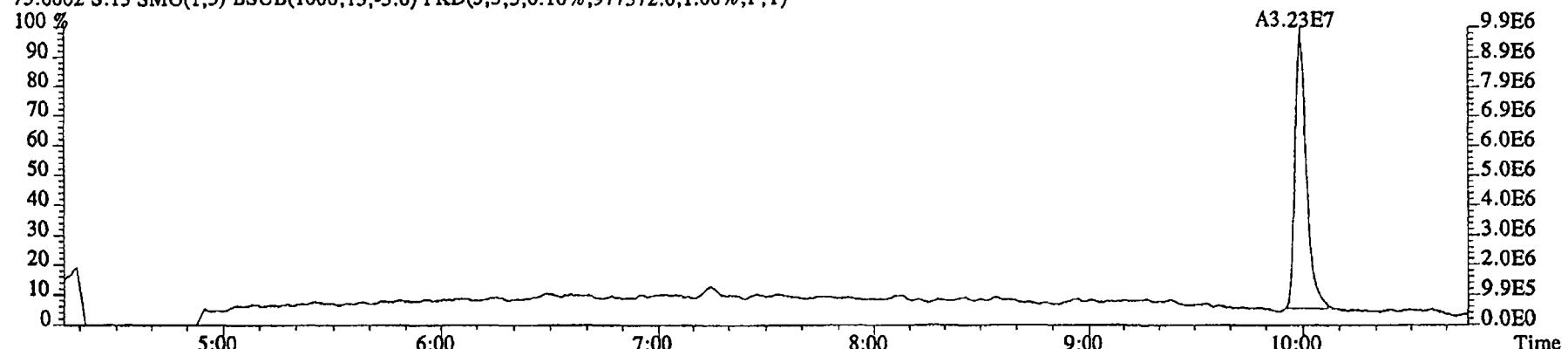
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
88.0524 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,348640.0,1.00%,F,T)



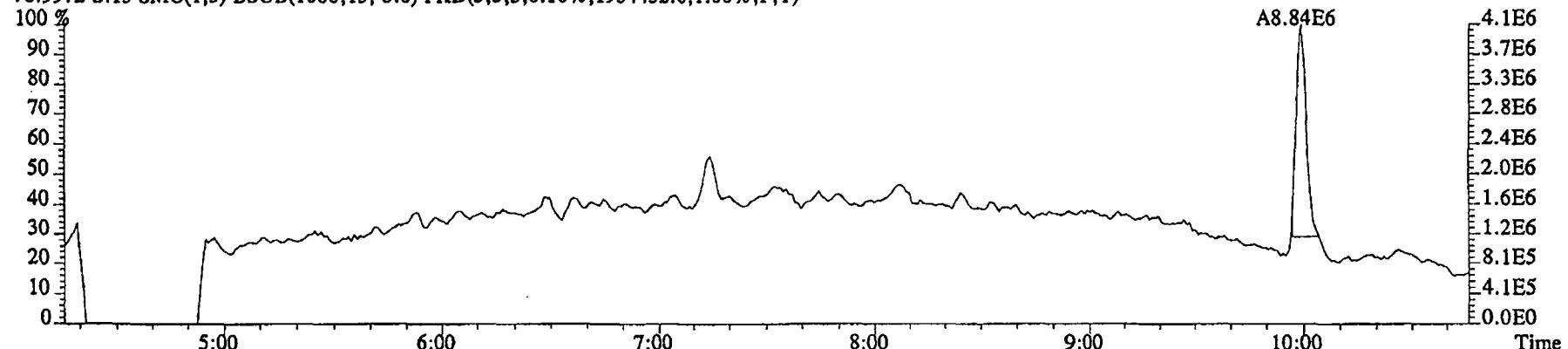
96.1026 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,209150528.0,1.00%,F,T)



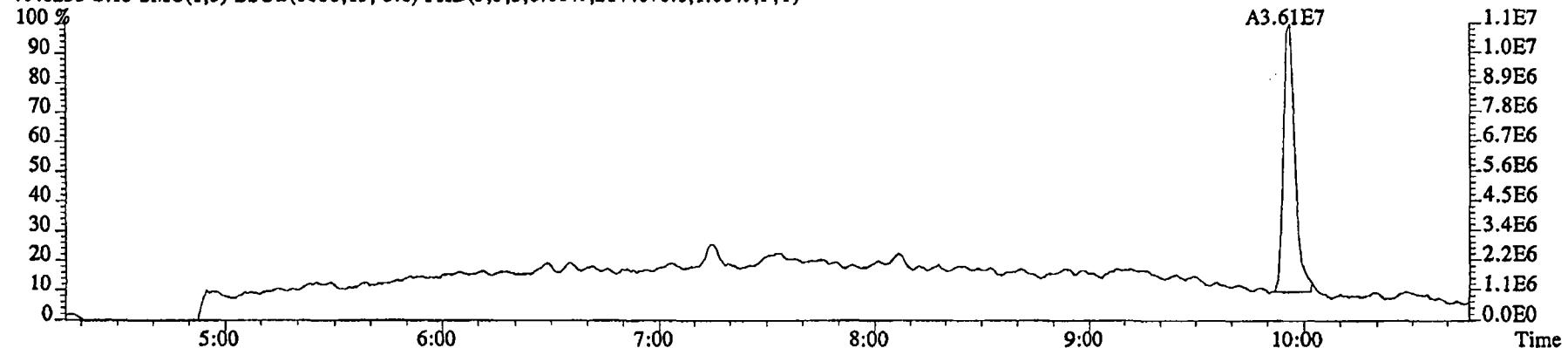
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
 Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
 75.0002 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,977372.0,1.00%,F,T)



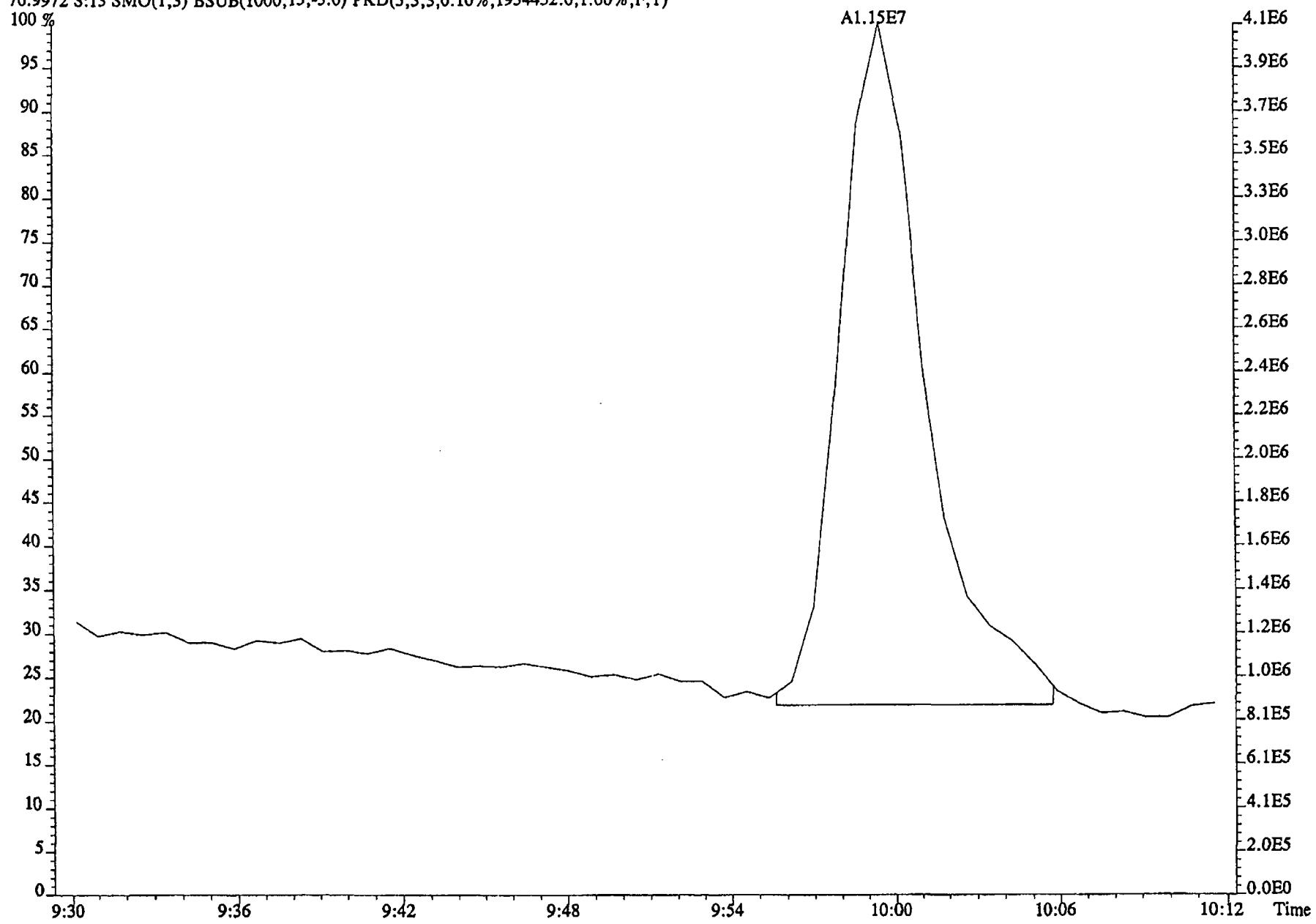
76.9972 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1934452.0,1.00%,F,T)



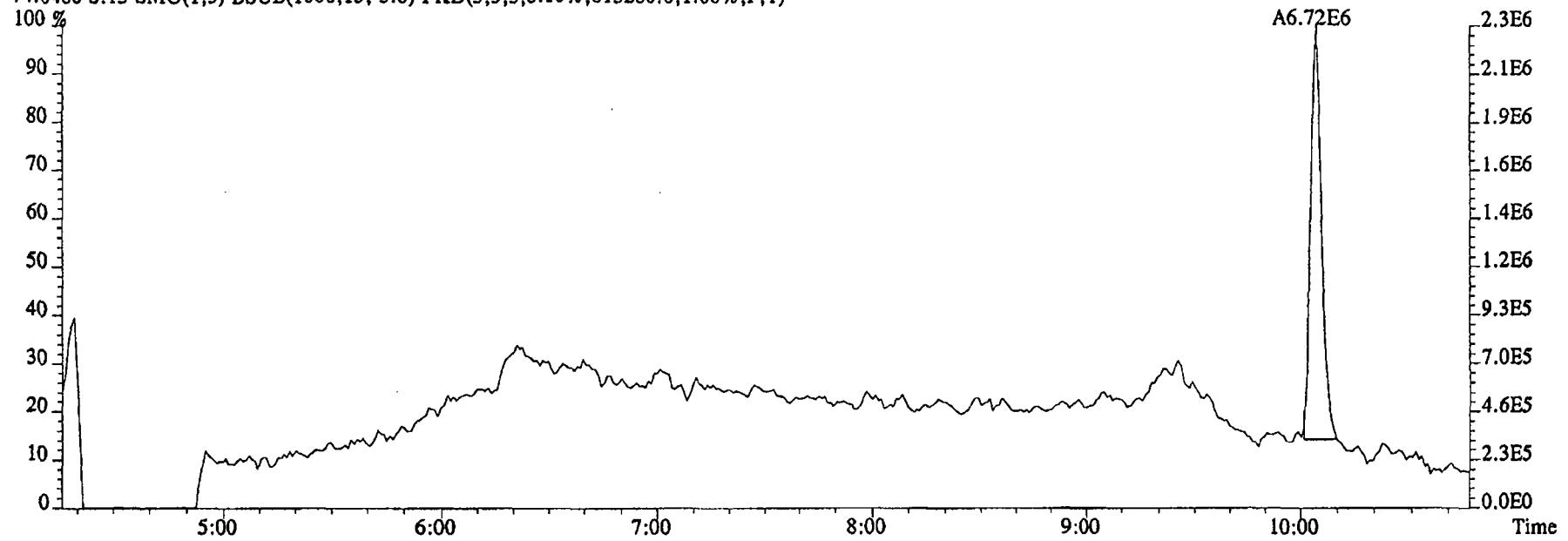
79.0253 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2144076.0,1.00%,F,T)



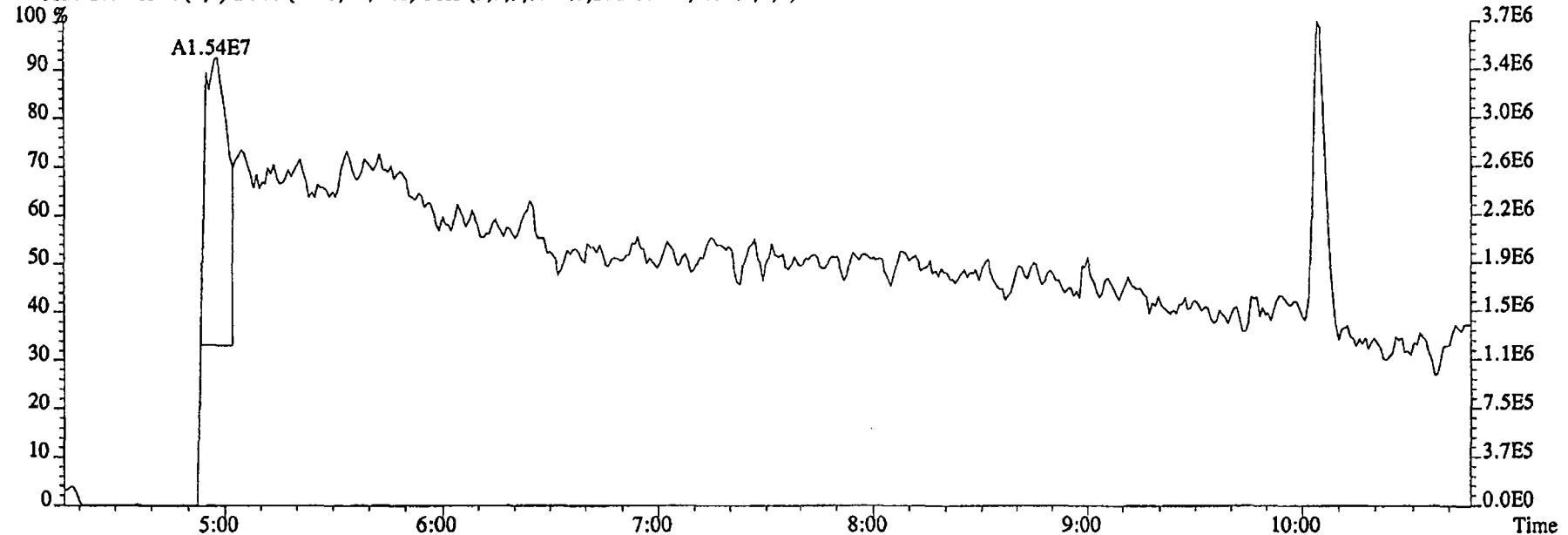
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
76.9972 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1934452.0,1.00%,F,T)



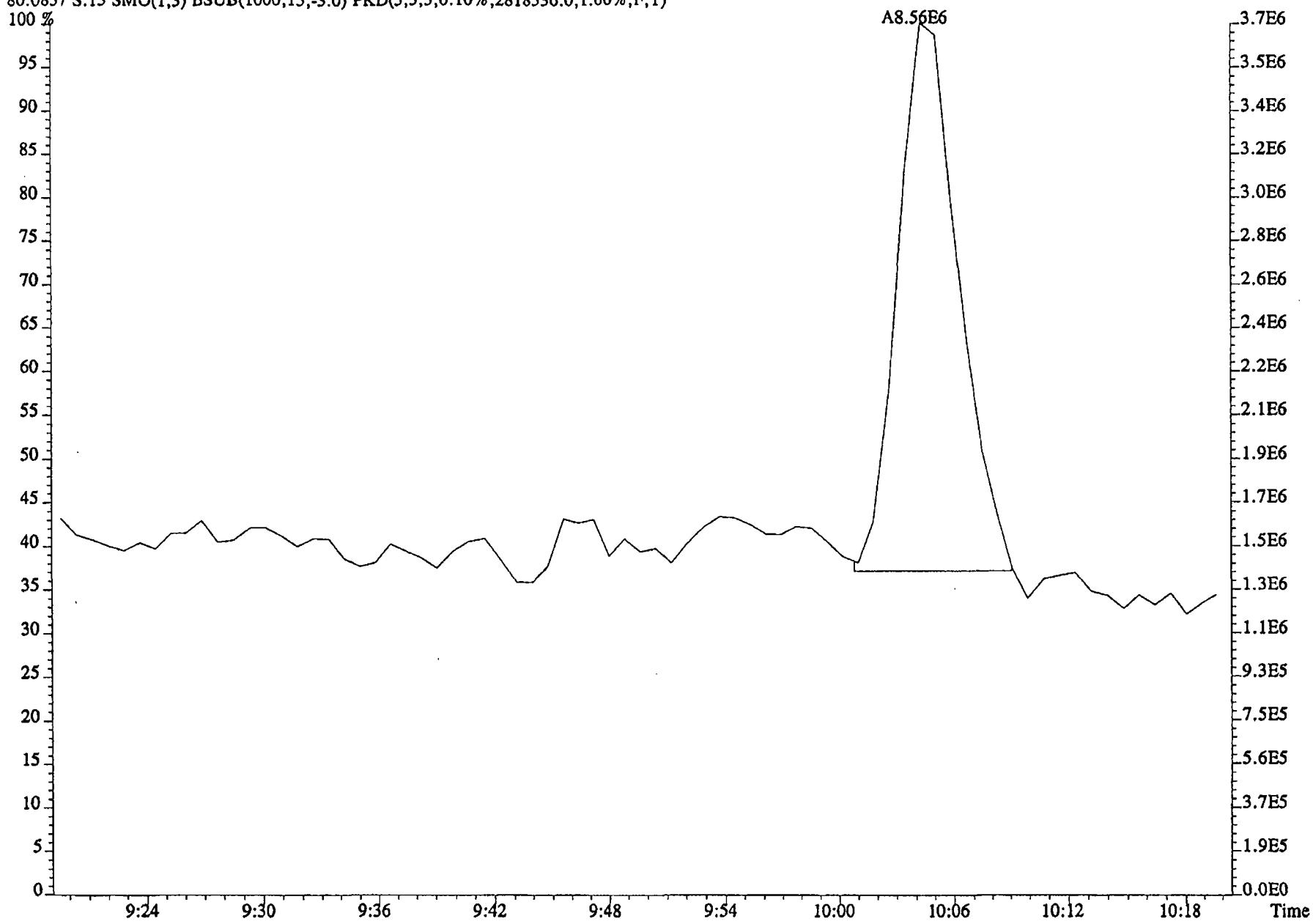
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
74.0480 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,615280.0,1.00%,F,T)



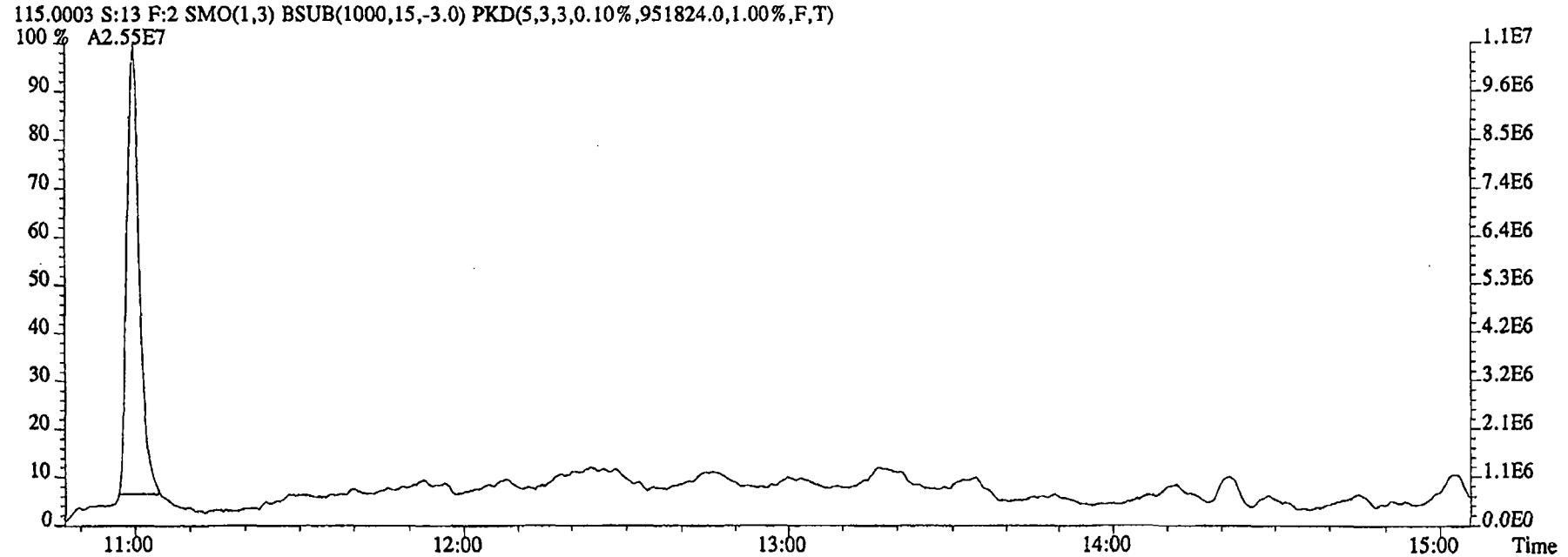
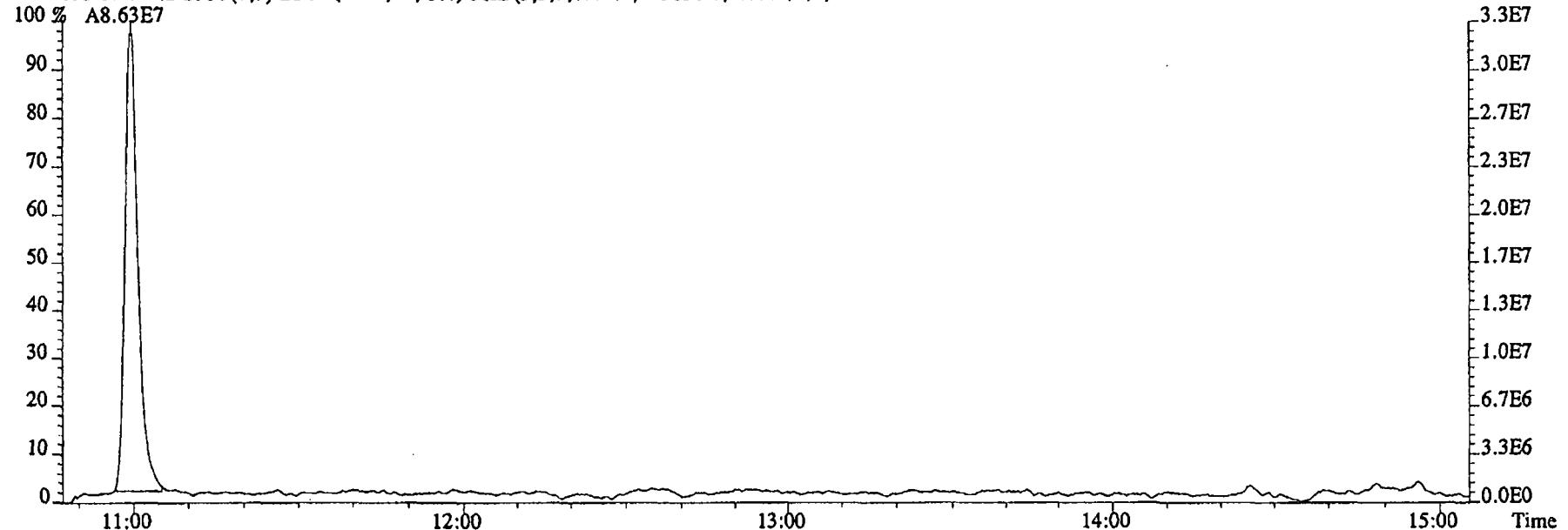
80.0857 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2818536.0,1.00%,F,T)



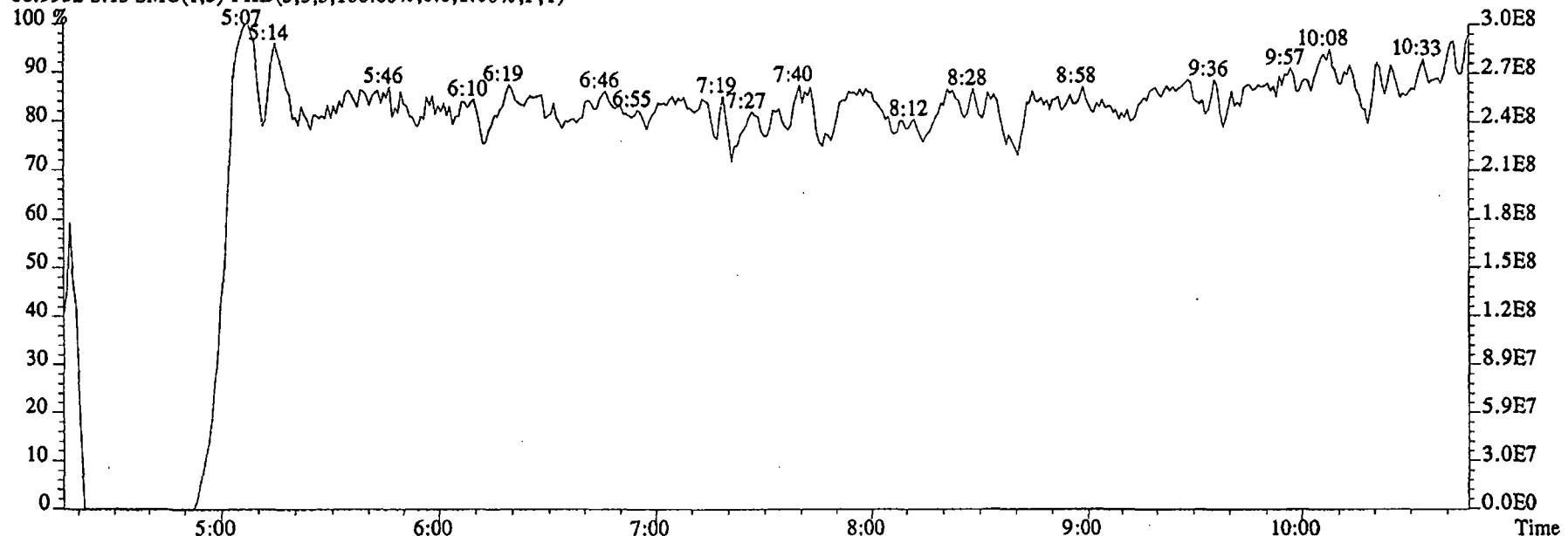
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
80.0857 S:13 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2818536.0,1.00%,F,T)



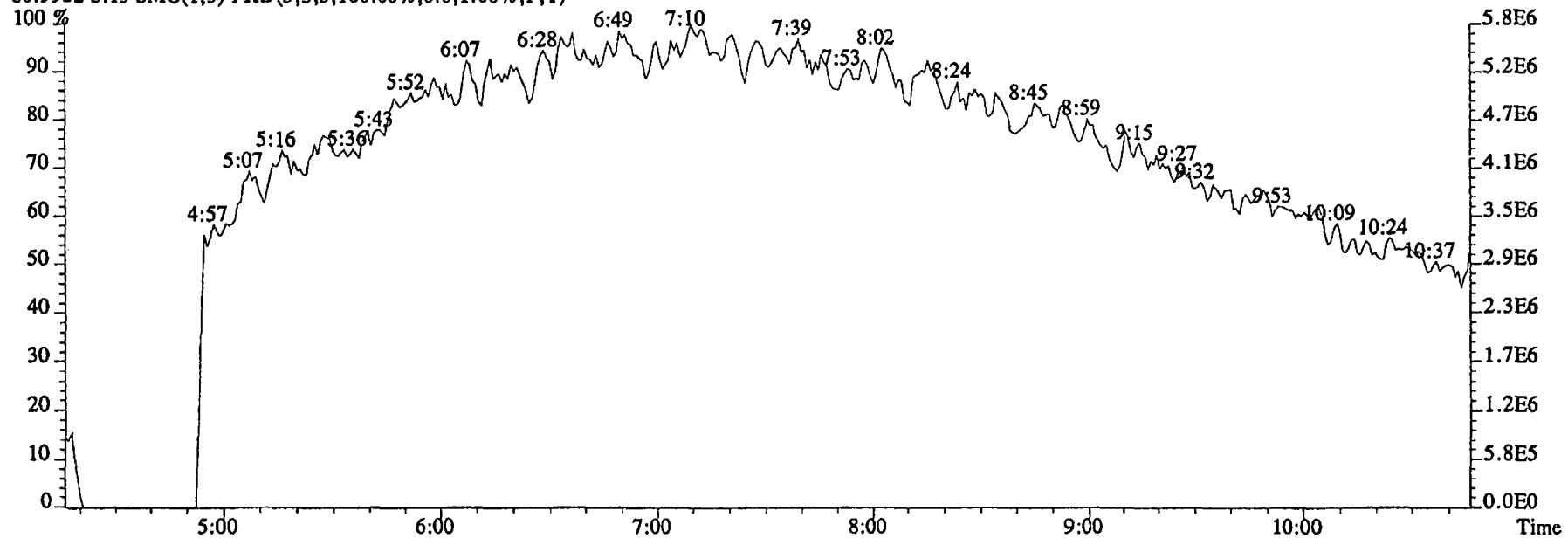
File:03DE04B5SP #1-602 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
113.0032 S:13 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,829656.0,1.00%,F,T)



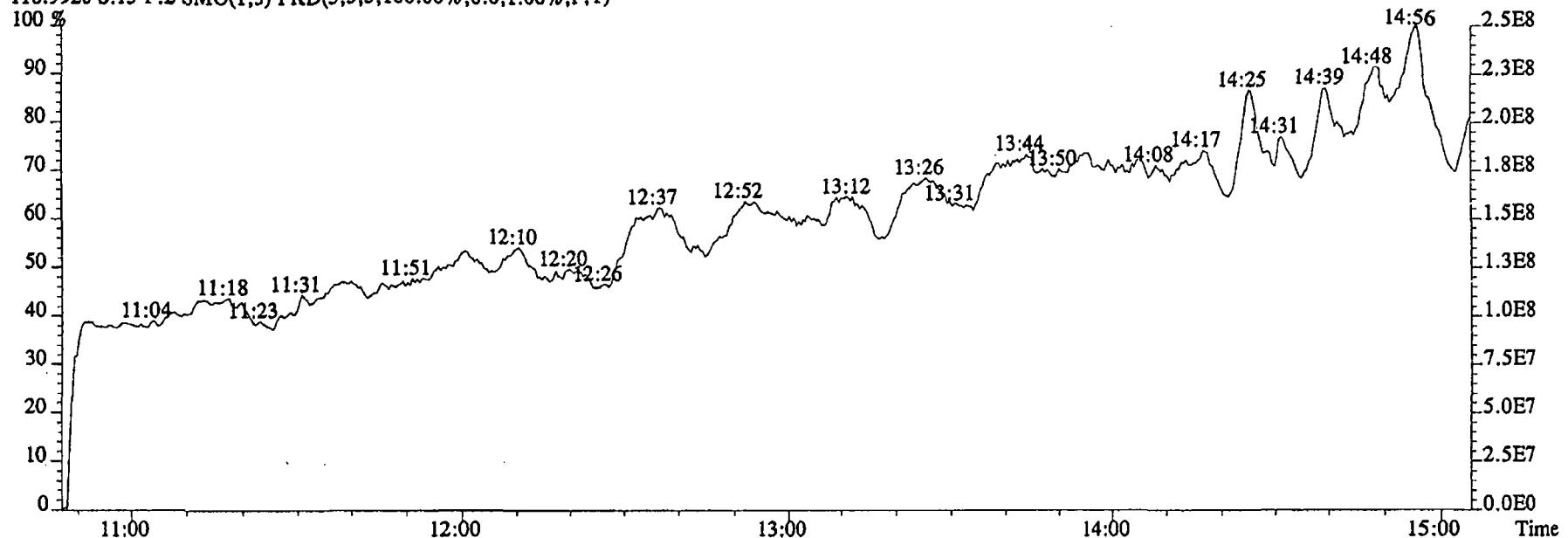
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
68.9952 S:13 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



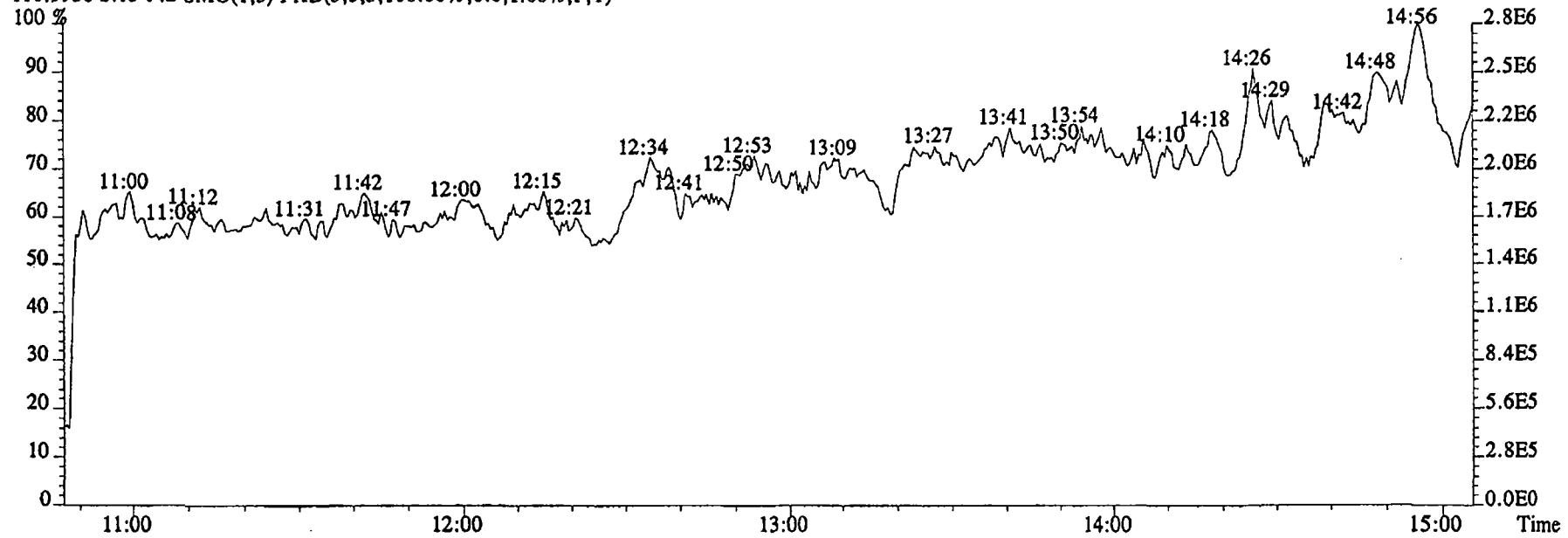
80.9952 S:13 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-602 Acq: 4-DEC-2004 02:05:08 GC EI+ Voltage SIR 70SE  
Sample#13 Text:GX3LW-1-AFS :G4L010311-2MS Exp:NDMAVOA  
118.9920 S:13 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:13 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

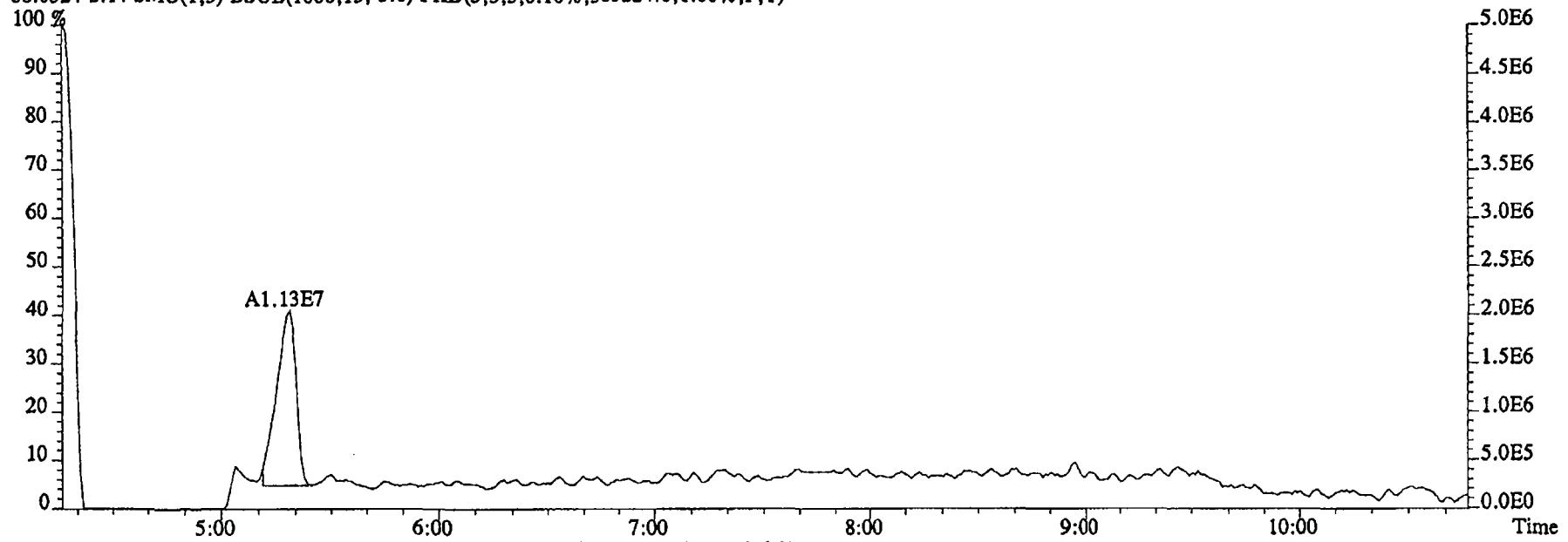


Run text: GX3LW-1-AGD      Sample text: GX3LW-1-AGD :G4L010311-2SD  
 Run #12    Filename: 03DE04B5SP    S: 14    I: 1    Results: 03DE045SP1625  
 Acquired: 4-DEC-04    02:25:29    Processed: 6-DEC-04    13:29:34  
 Run: 03DE04B5SP    Analyte: 1625    Cal: 16251203045SP  
 Factor 1: 1.000    Factor 2: 1.000    Sample size: 0.917    L

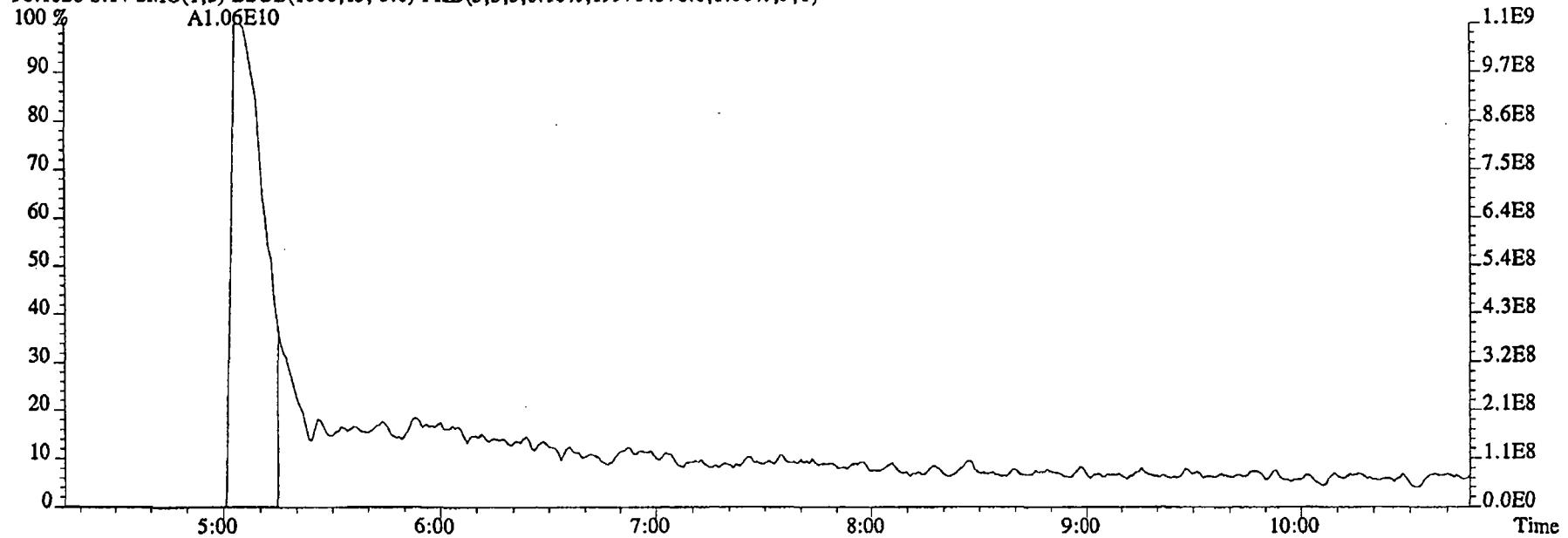
Name	Resp	RA	RT	RRF	Conc	EDL	Rec	M
2-Chloropyridine	19026000		11:00	-	69.04	-	-	n
D8-1,4-Dioxane	10618900000	*	5:05	0.99	123312.27	17688.05	11307	n
1,4-Dioxane			Not Fnd	1.59	*	0.70	-	n
D5-123-TriChloroPropane	32981200		9:57	4.02	93.98	63.72	86.2	n
1,2,3-TriChloroPropane	9943020		10:00	0.39	84.02 ✓	210.68	-	n
1,2,3-TriChloroPropane	34569300		10:00	-	27.40	-	-	n
D6-NDMA	7436890		10:05	2.49	34.27	101.10	31.4	y
NDMA	6400420		10:04	1.10	85.20 ✓	107.47	-	n
2-Chloropyridine	75074900		11:00	-	85.26	-	-	n

12-13-04  
S

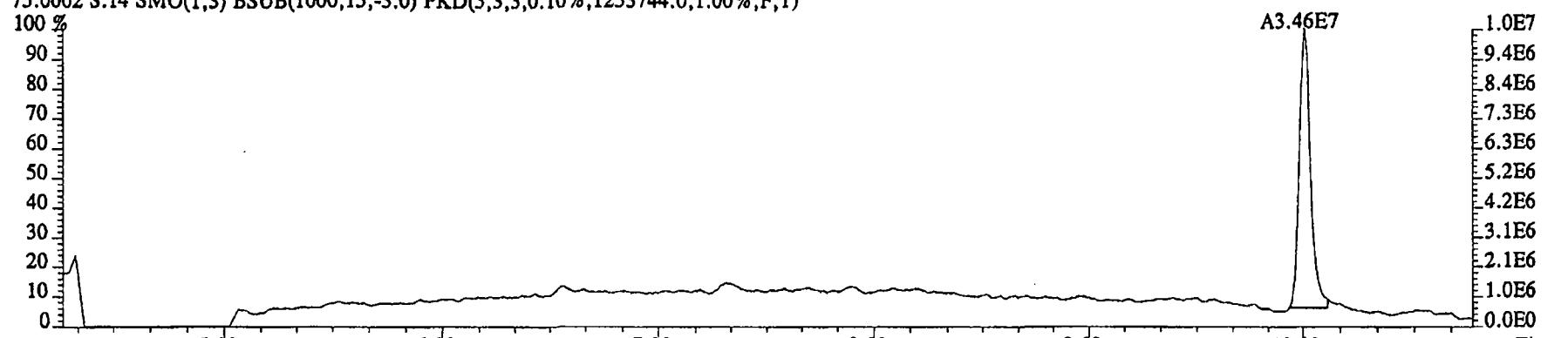
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
Sample#14 Text:GX3LW-1-AGD :G4L010311-2SD Exp:NDMAVOA  
88.0524 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,365224.0,1.00%,F,T)



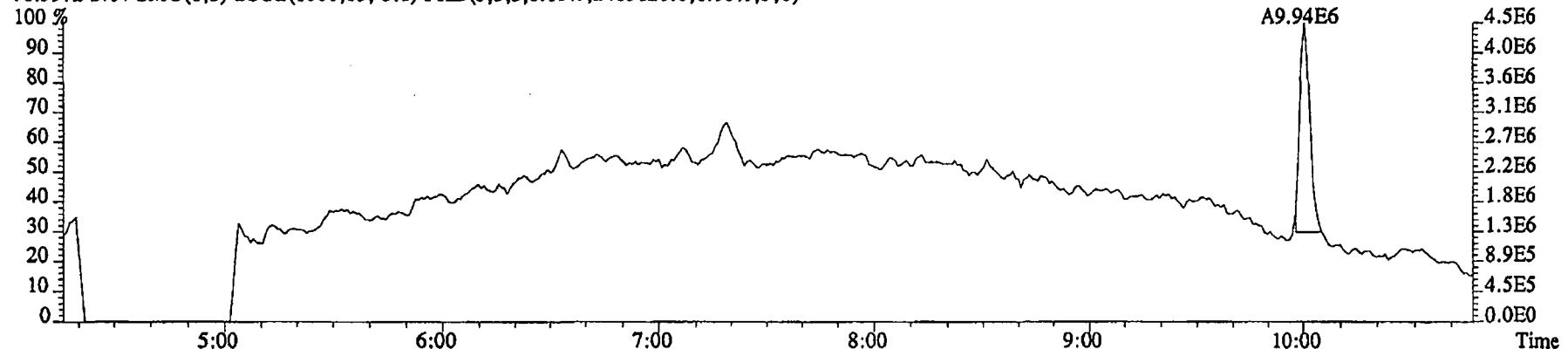
96.1026 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,199764576.0,1.00%,F,T)



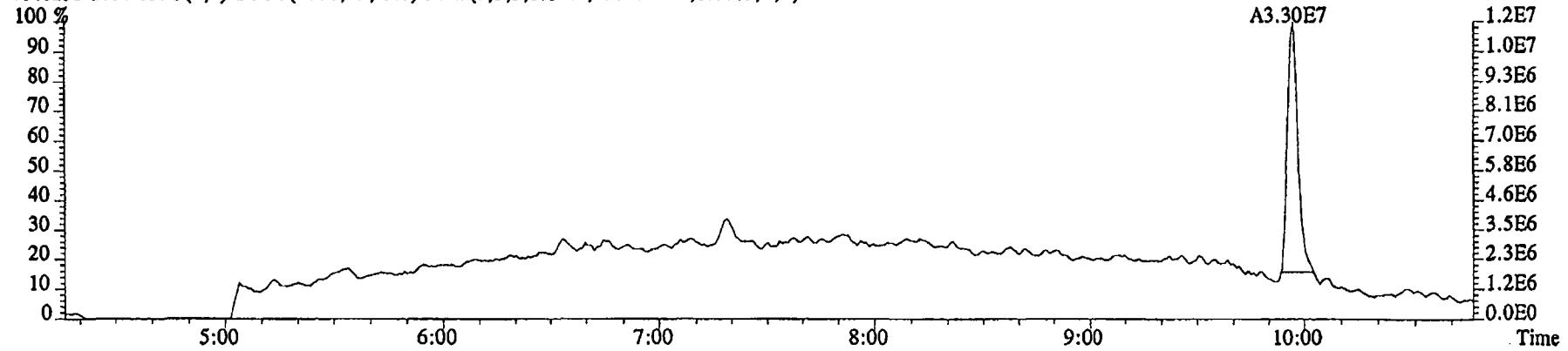
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
 Sample#14 Text:GX3LW-1-AGD :G4L010311-2SD Exp:NDMAVOA  
 75.0002 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1253744.0,1.00%,F,T)



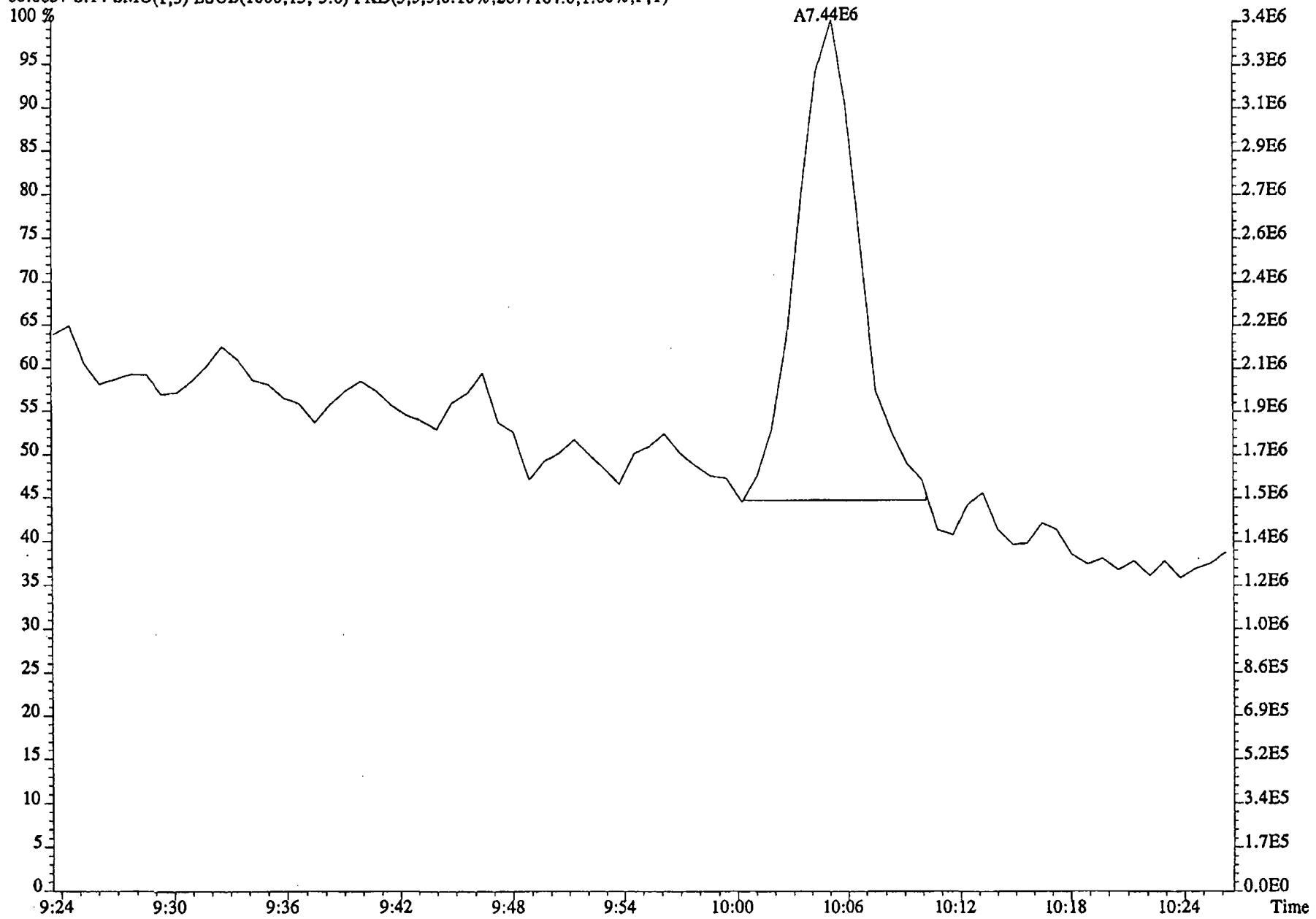
76.9972 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2465820.0,1.00%,F,T)



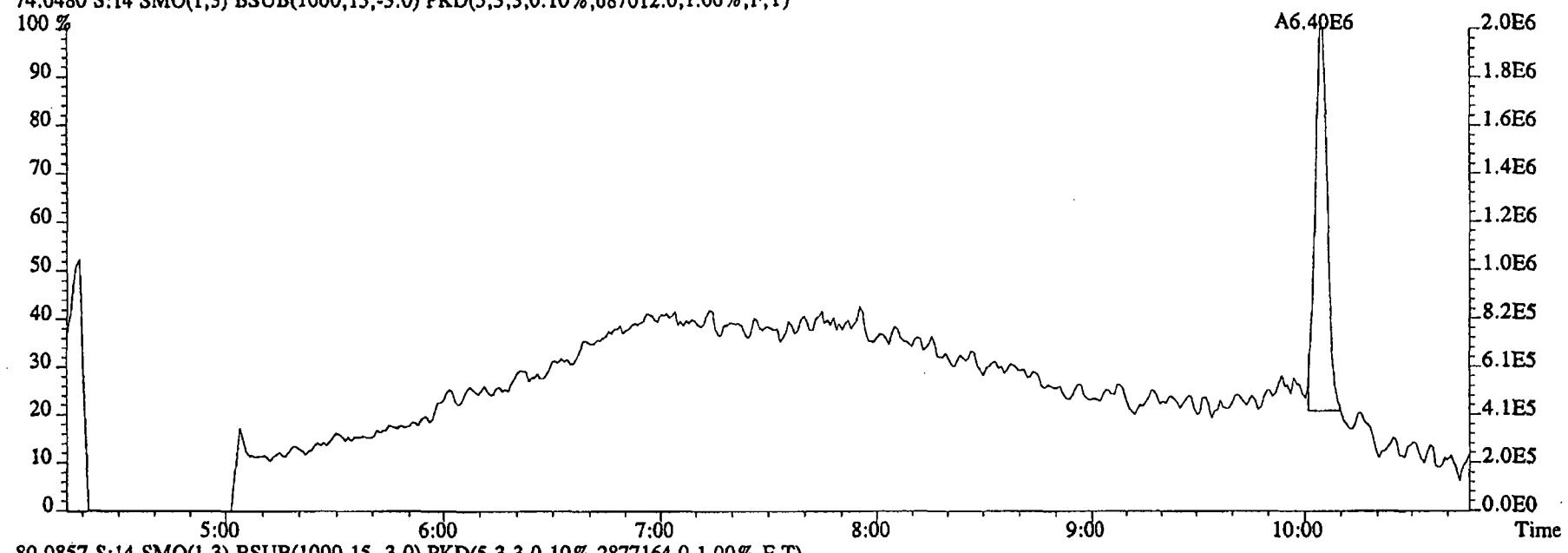
79.0253 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2932900.0,1.00%,F,T)



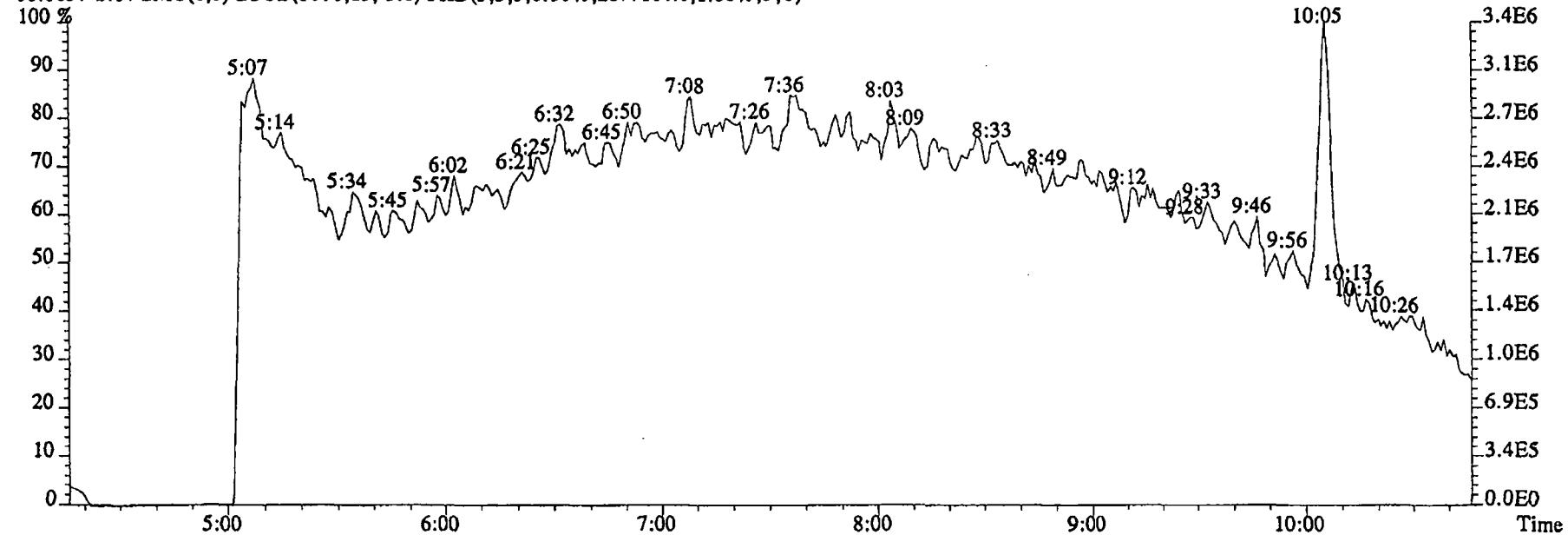
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
Sample#14 Text:GX3LW-1-AGD :G4L010311-2SD Exp:NDMAVOA  
80.0857 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2877164.0,1.00%,F,T)



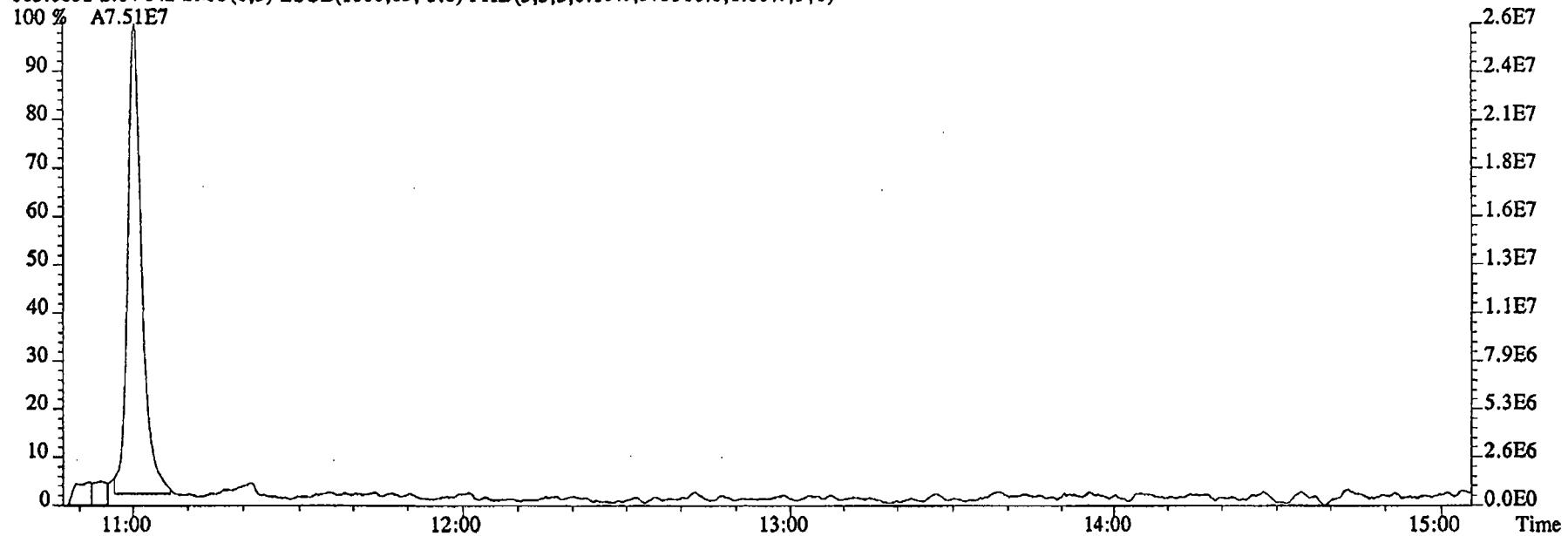
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
 Sample#14 Text:GX3LW-1-AGD :G4L010311-2SD Exp:NDMAVOA  
 74.0480 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,687012.0,1.00%,F,T)



80.0857 S:14 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2877164.0,1.00%,F,T)

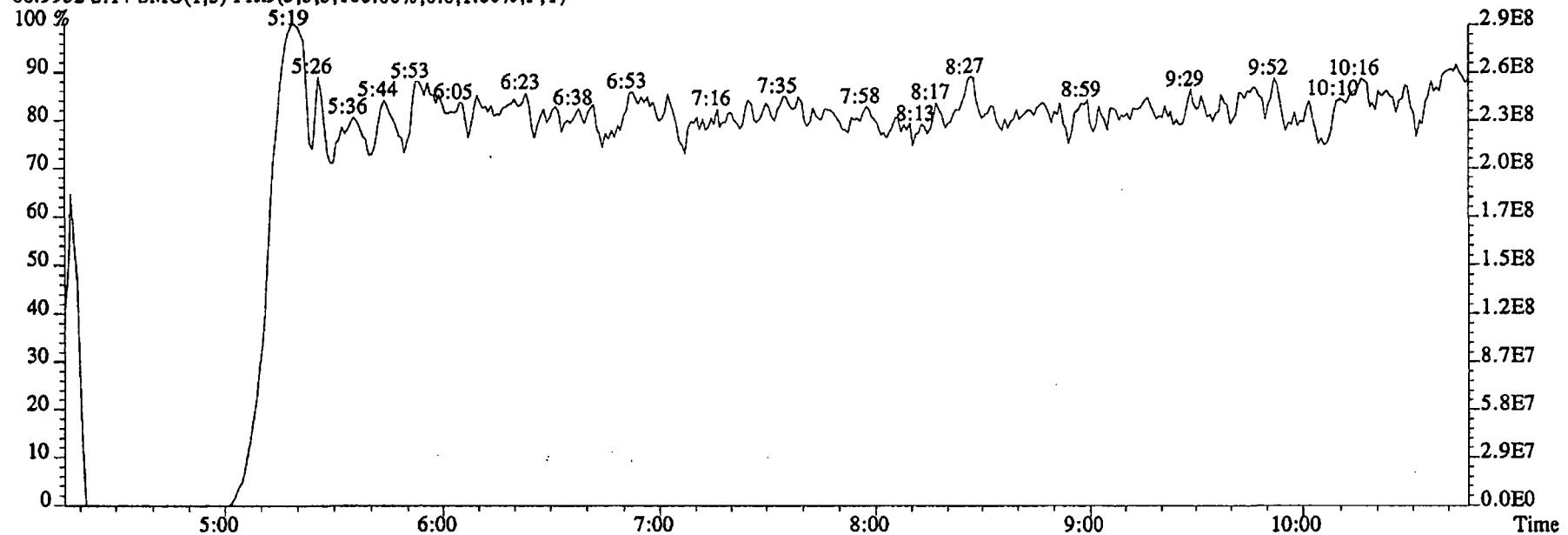


File:03DE04B5SP #1-602 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
Sample#14 Text:GX3LW-1-AGD :G4L010311-2SD Exp:NDMAVOA  
113.0032 S:14 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,573500.0,1.00%,F,T)

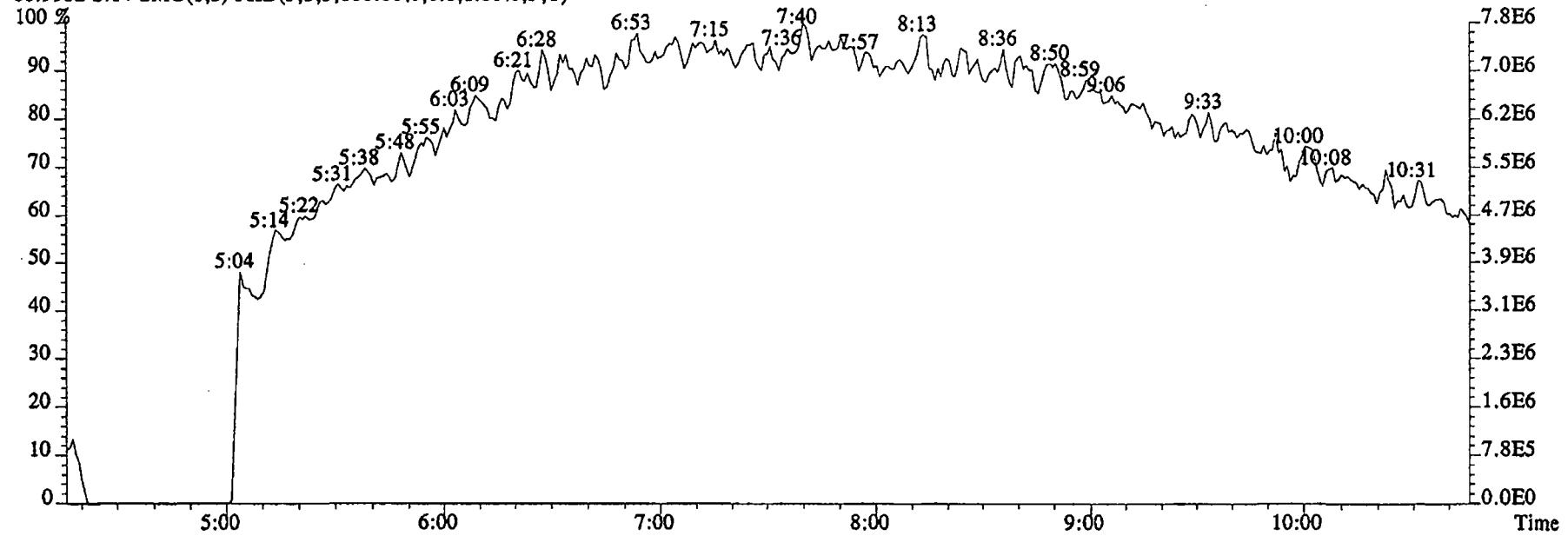


11:00 12:00 13:00 14:00 15:00 Time

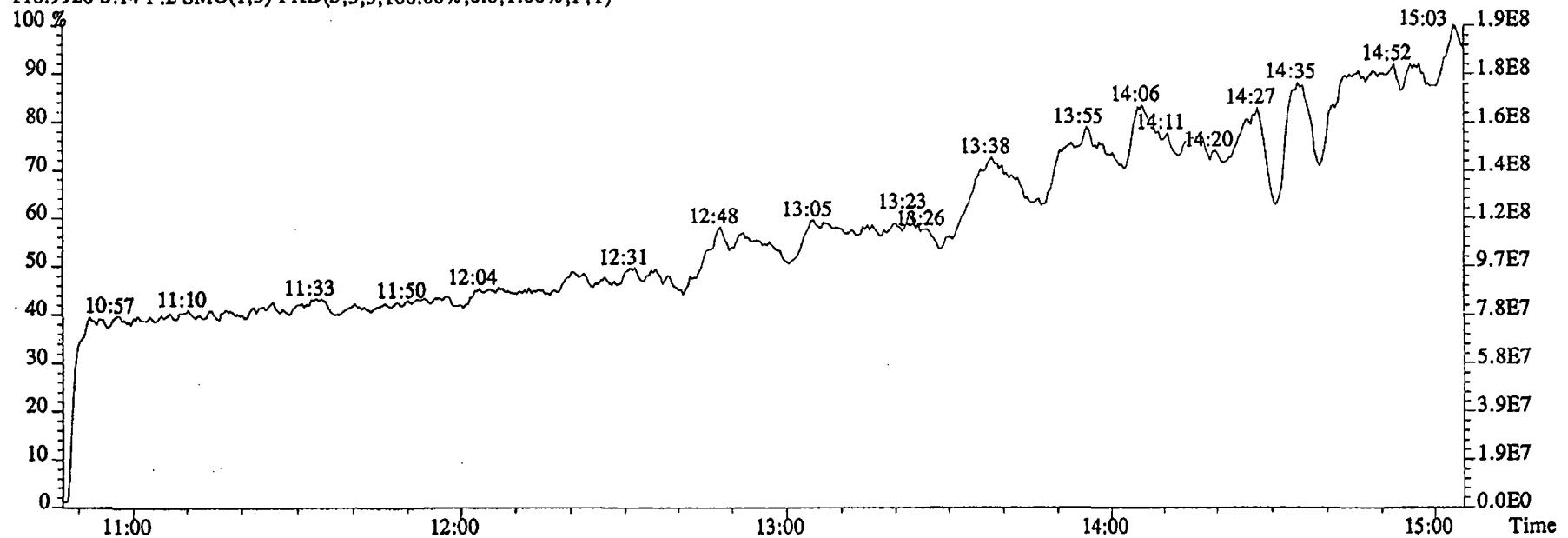
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
 Sample#14 Text:GX3LW-1-AGD ;G4L010311-2SD Exp:NDMAVOA  
 68.9952 S:14 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



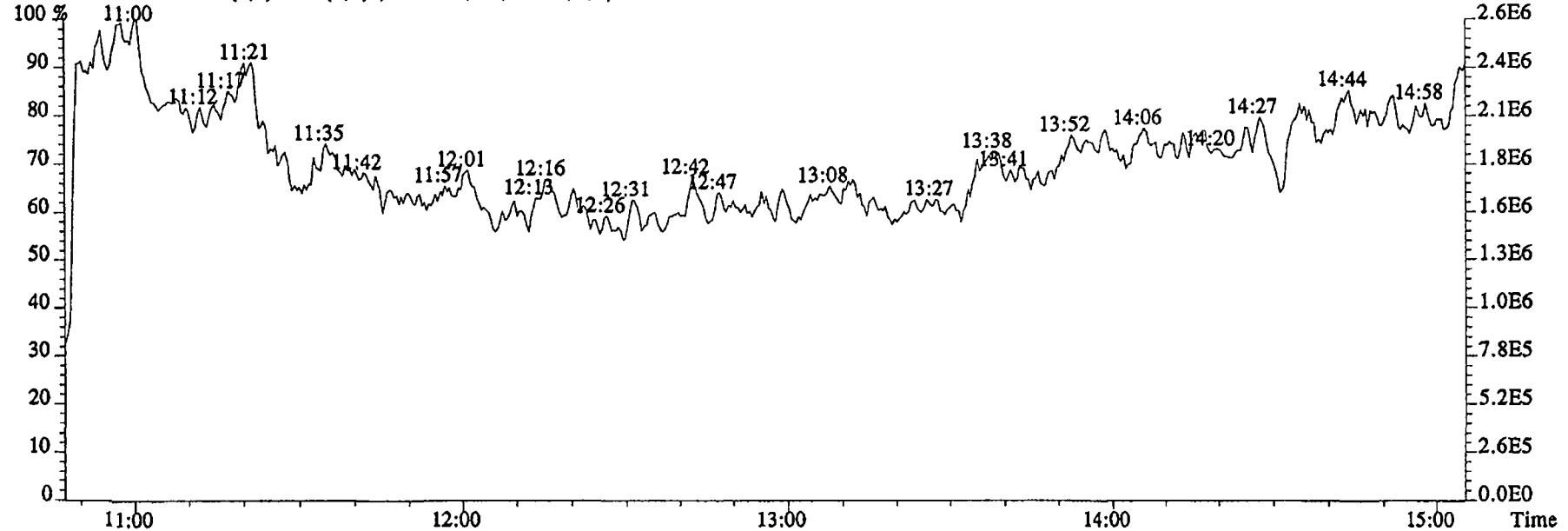
80.9952 S:14 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-602 Acq: 4-DEC-2004 02:25:29 GC EI+ Voltage SIR 70SE  
Sample#14 Text:GX3LW-1-AGD :G4L010311-2SD Exp:NDMAVOA  
118.9920 S:14 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:14 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



## Quantitation Summary

STL

Page 8 of

Run text: GX3L0-1-AC      Sample text: GX3L0-1-AC :G4L010311-3  
 Run #13 Filename: 03DE04B5SP S: 15 I: 1 Results: 03DE045SP1625  
 Acquired: 4-DEC-04 02:45:51 Processed: 6-DEC-04 13:29:35  
 Run: 03DE04B5SP Analyte: 1625 Cal: 16251203045SP  
 Factor 1: 1.000 Factor 2: 1.000 Sample size: 0.985 L

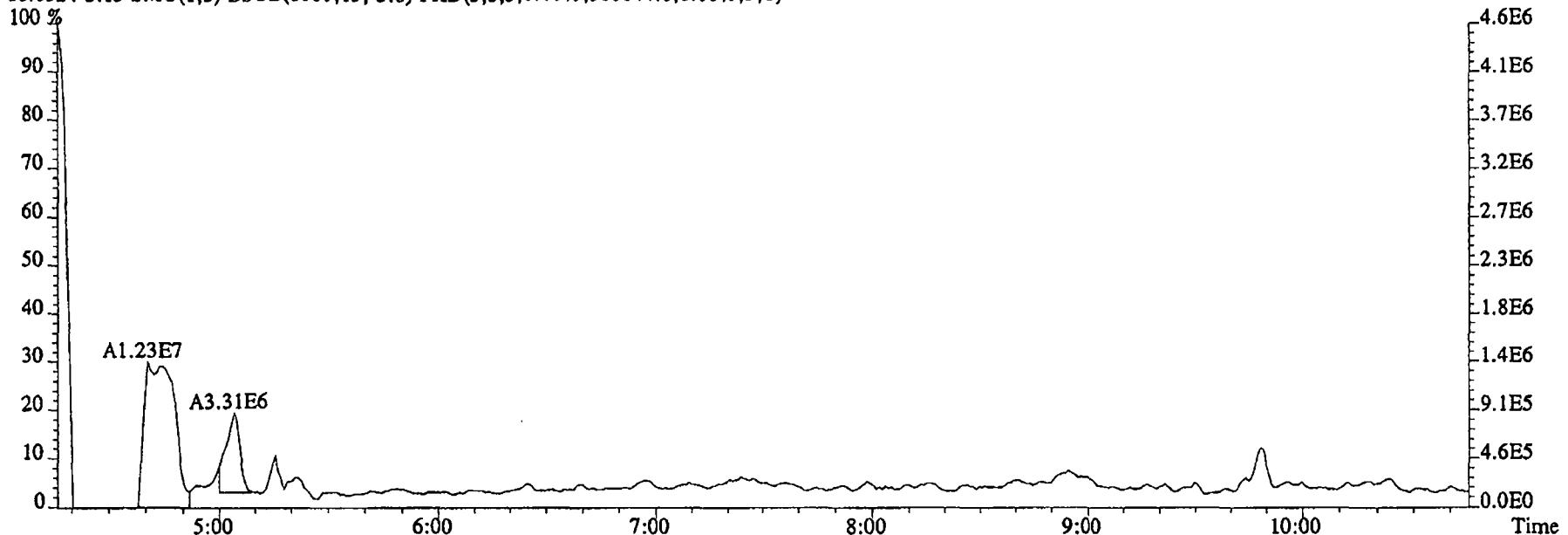
Name	Resp	RA	RT	RRF	Conc	<i>er</i>	EDL	Rec	M
2-Chloropyridine	89382700		10:58	-	301.95		-	-	n
D8-1,4-Dioxane	*		Not Fnd	0.99	*		2418.67	*	n
1,4-Dioxane	3309330		5:04	1.59	*		*	-	n
D5-123-TriChloroPropane	114313000		9:54	4.02	64.55		5.92	63.6	n
1,2,3-TriChloroPropane	*		Not Fnd	0.39	*	<i>45.4</i>	<del>19.31</del> <i>14.4</i>	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*		-	-	n
D6-NDMA	22055100		10:03	2.49	20.14		24.23	19.8	y
NDMA	*		Not Fnd	1.10	*	<i>62.4</i>	<del>17.11</del> <i>6.17</i>	-	n
2-Chloropyridine	288324000		10:58	-	304.83		-	-	n

*12.12.04*  
*G*

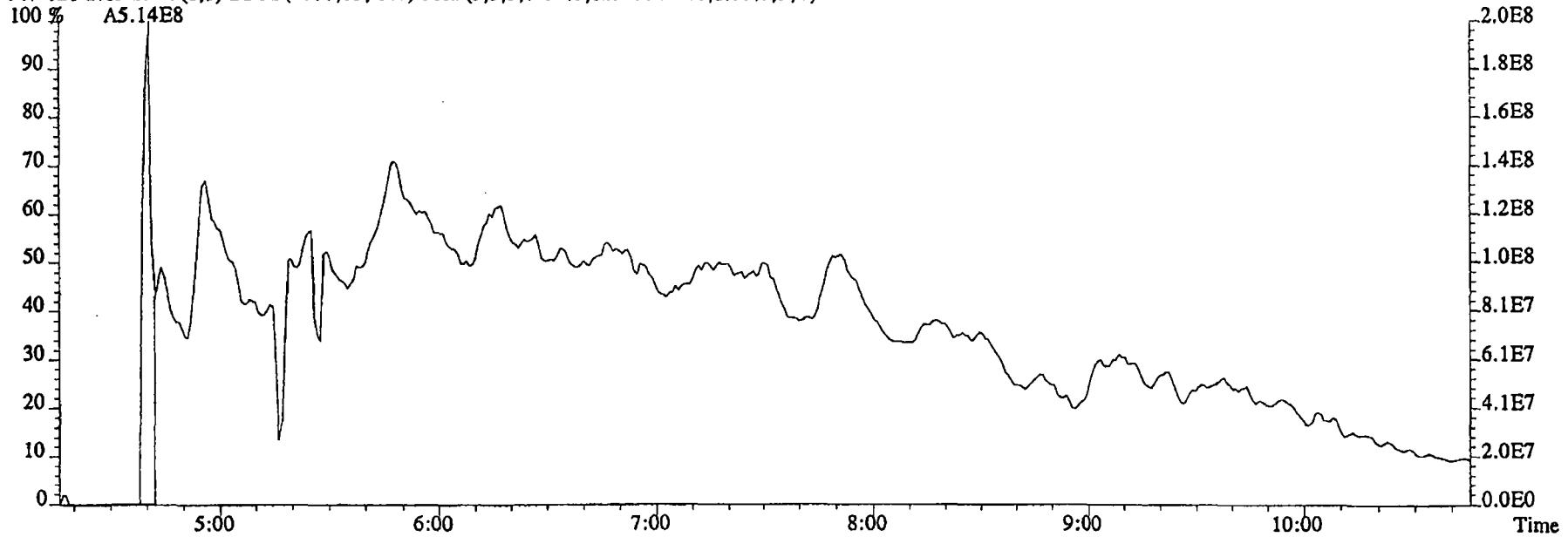
Run text: GX3L0-1-AC      Sample text: GX3L0-1-AC :G4L010311-3.  
 Run #13    Filename: 03DE04B5SP    S: 15    I: 1    Results: 03DE045SP1625  
 Acquired: 4-DEC-04    02:45:51      Processed: 6-DEC-04    13:29:35  
 Run: 03DE04B5SP      Analyte: 1625      Cal: 16251203045SP  
 Factor 1: 1.000      Factor 2: 1.000      Sample size: 0.985    L

Name	Resp	RA	RT	RRF	Conc	$\mu$	EDL	Rec	M
2-Chloropyridine	89382700		10:58	-	301.95		-	-	n
D8-1,4-Dioxane	*		Not Fnd	0.99	*	2418.67	*	*	n
1,4-Dioxane	3309330		5:04	1.59	*	*	*	-	n
D5-123-TriChloroPropane	114313000		9:54	4.02	64.55	5.92	63.6	n	
1,2,3-TriChloroPropane	*		Not Fnd	0.39	*	250	19.31 0.70	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*		-	-	n
D6-NDMA	18760800		10:03	2.49	17.13	24.23	16.9	n	
NDMA	*		Not Fnd	1.10	*	420	10.11 0.17	-	n
2-Chloropyridine	288324000		10:58	-	304.83		-	-	n

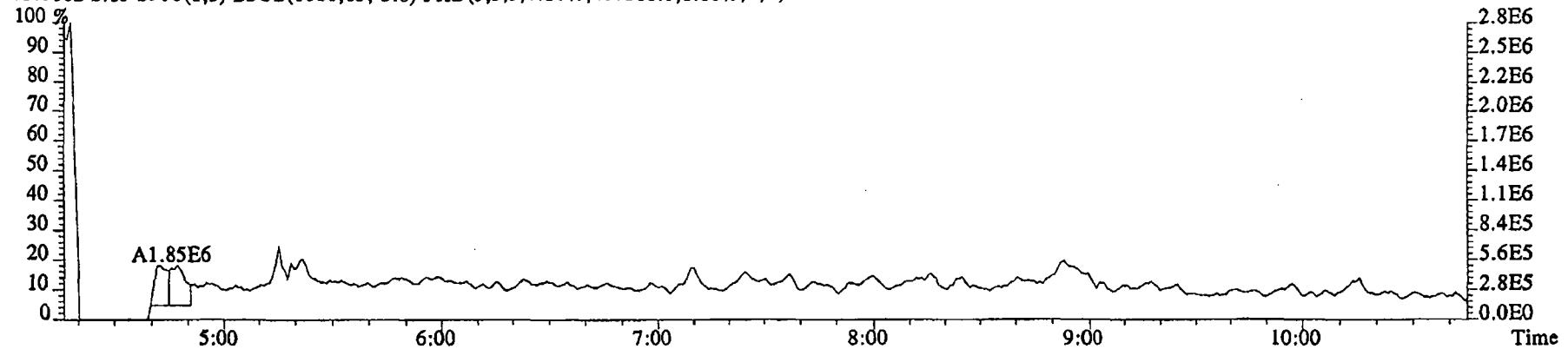
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
88.0524 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,310144.0,1.00%,F,T)



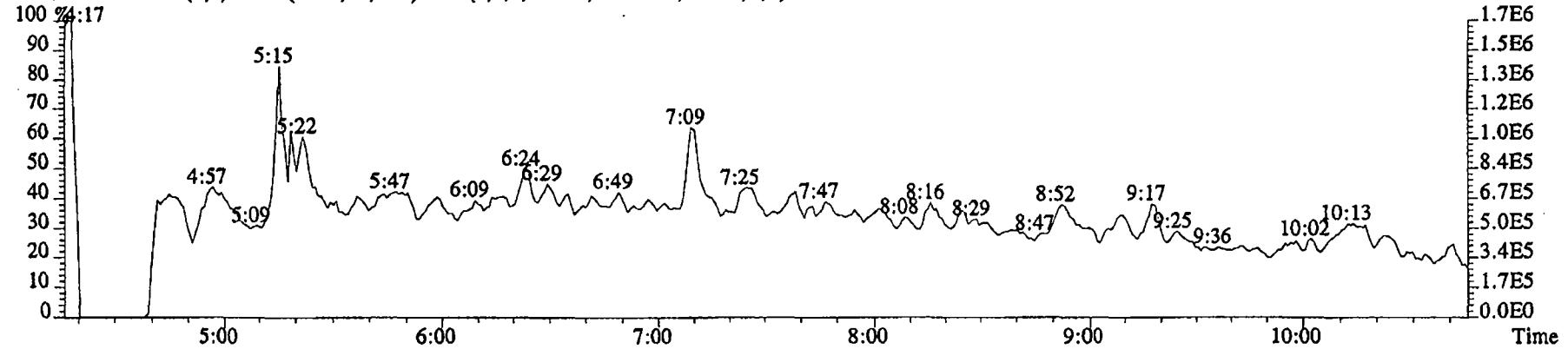
96.1026 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,125733040.0,1.00%,F,T)



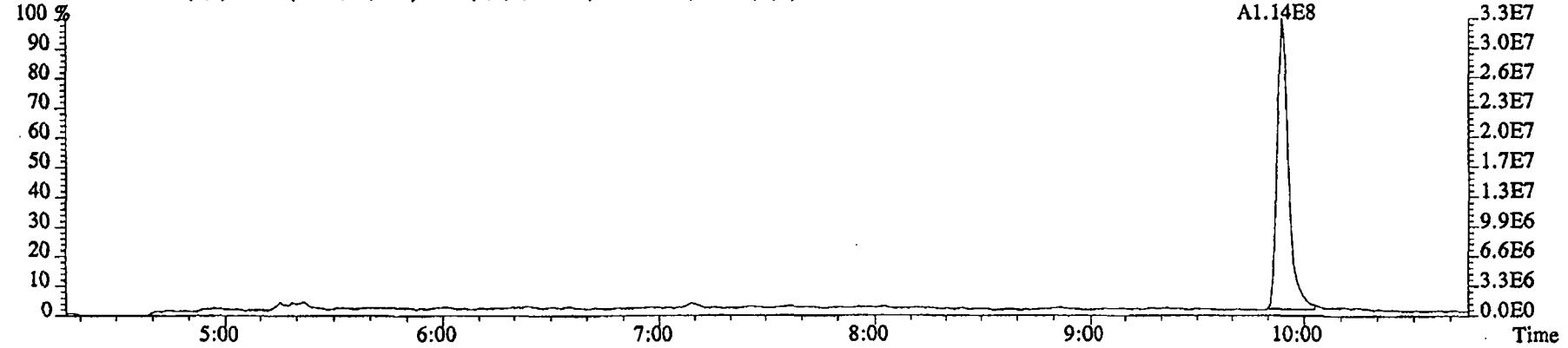
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
 Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
 75.0002 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,407500.0,1.00%,F,T)



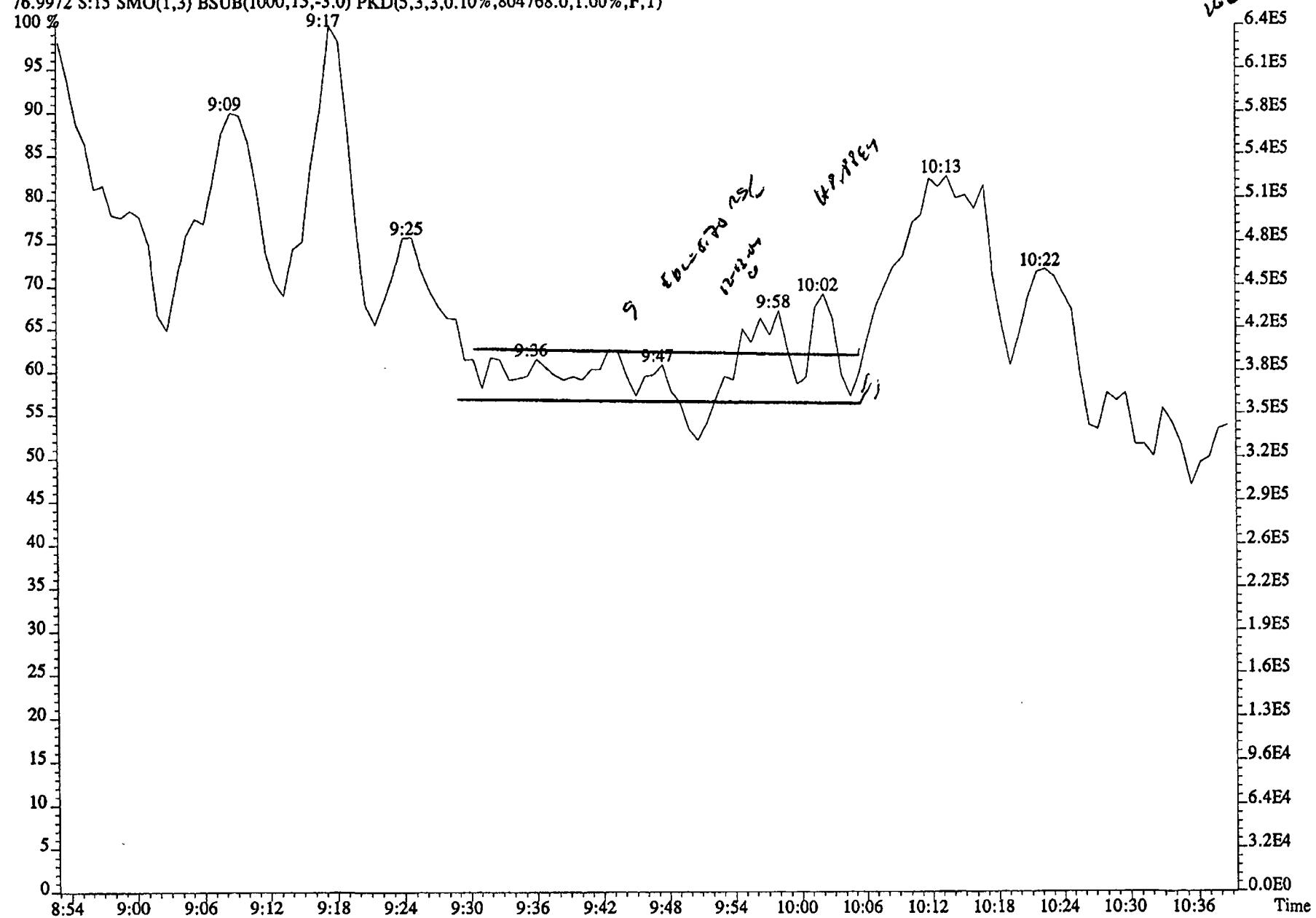
76.9972 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,804768.0,1.00%,F,T)



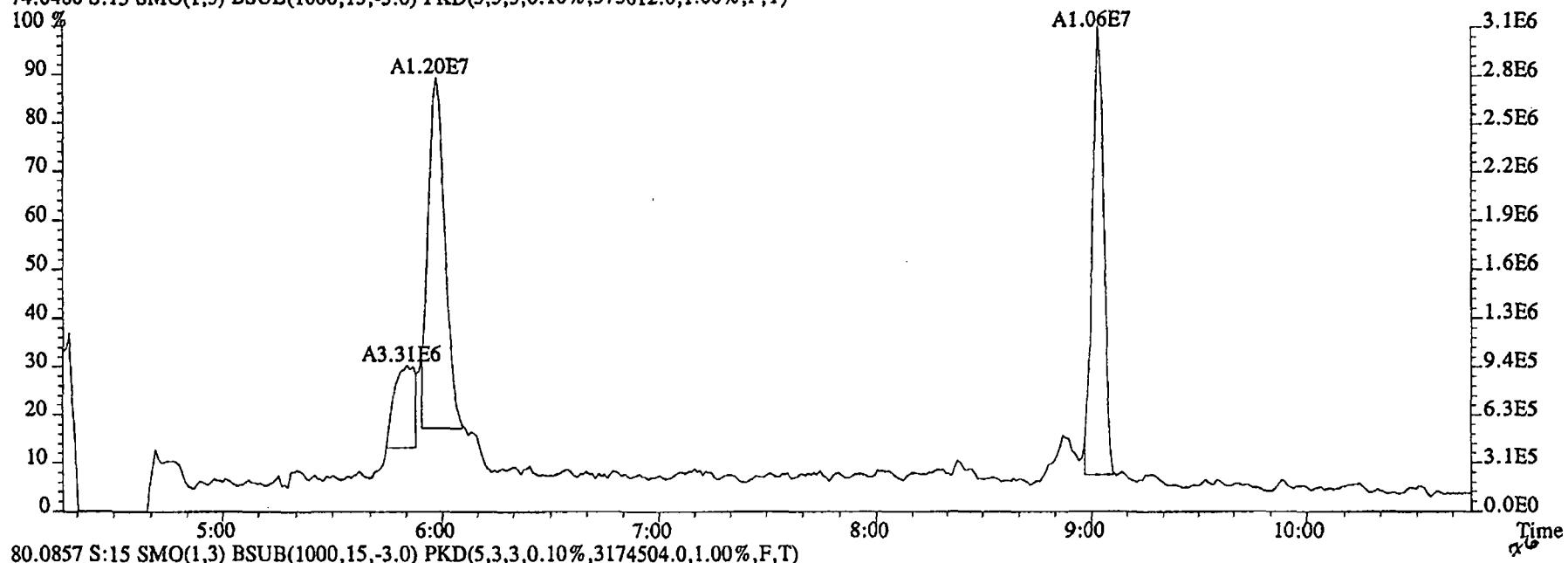
79.0253 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1253656.0,1.00%,F,T)



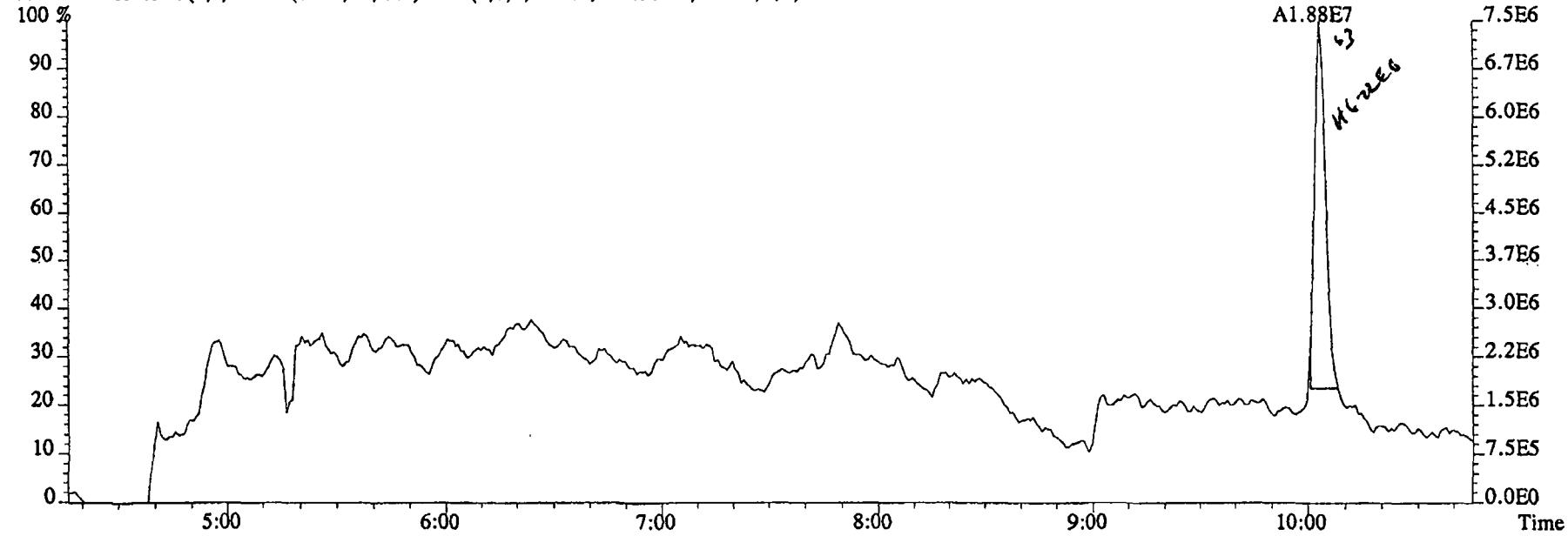
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
76.9972 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,804768.0,1.00%,F,T)



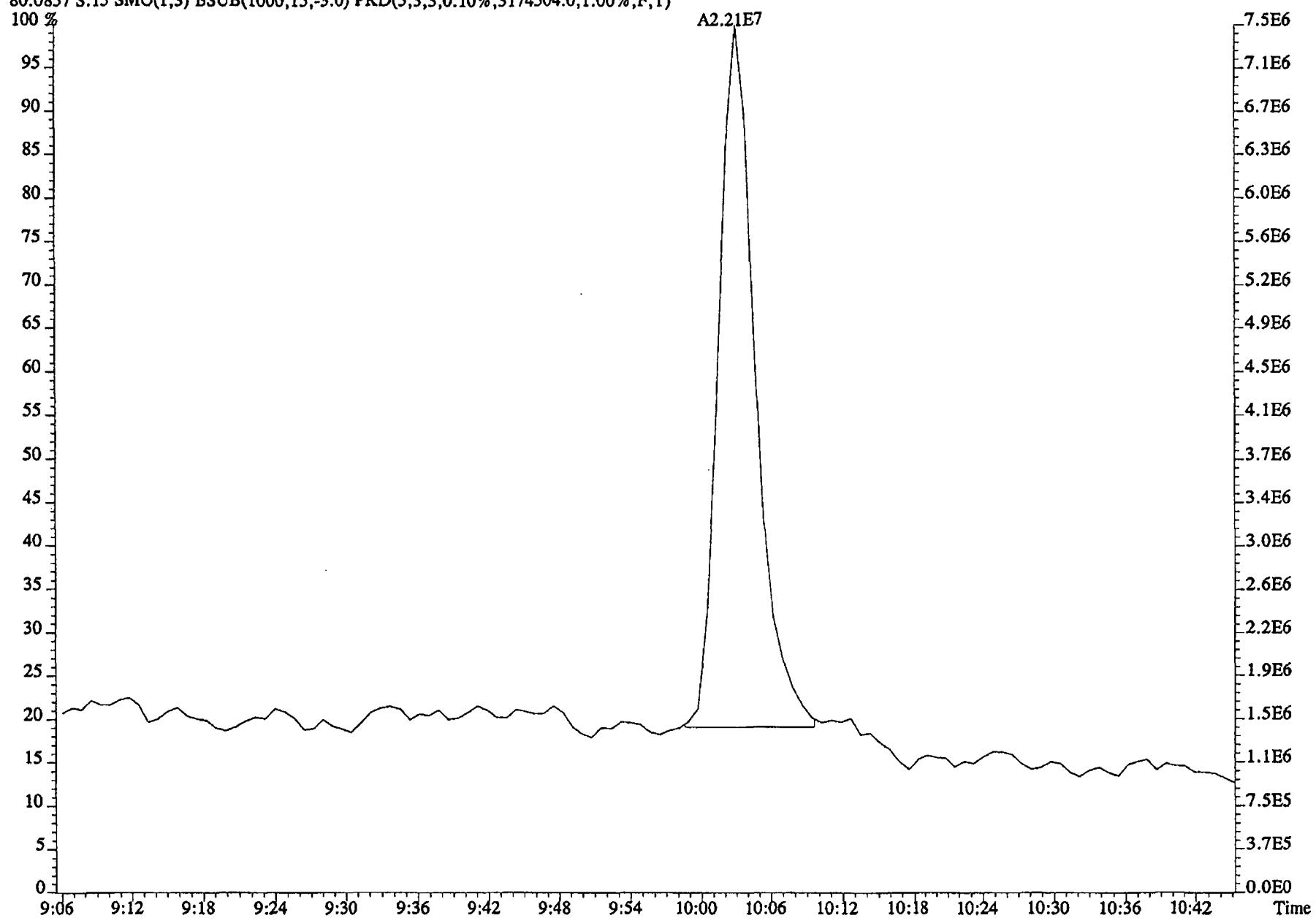
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
 Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
 74.0480 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,373612.0,1.00%,F,T)



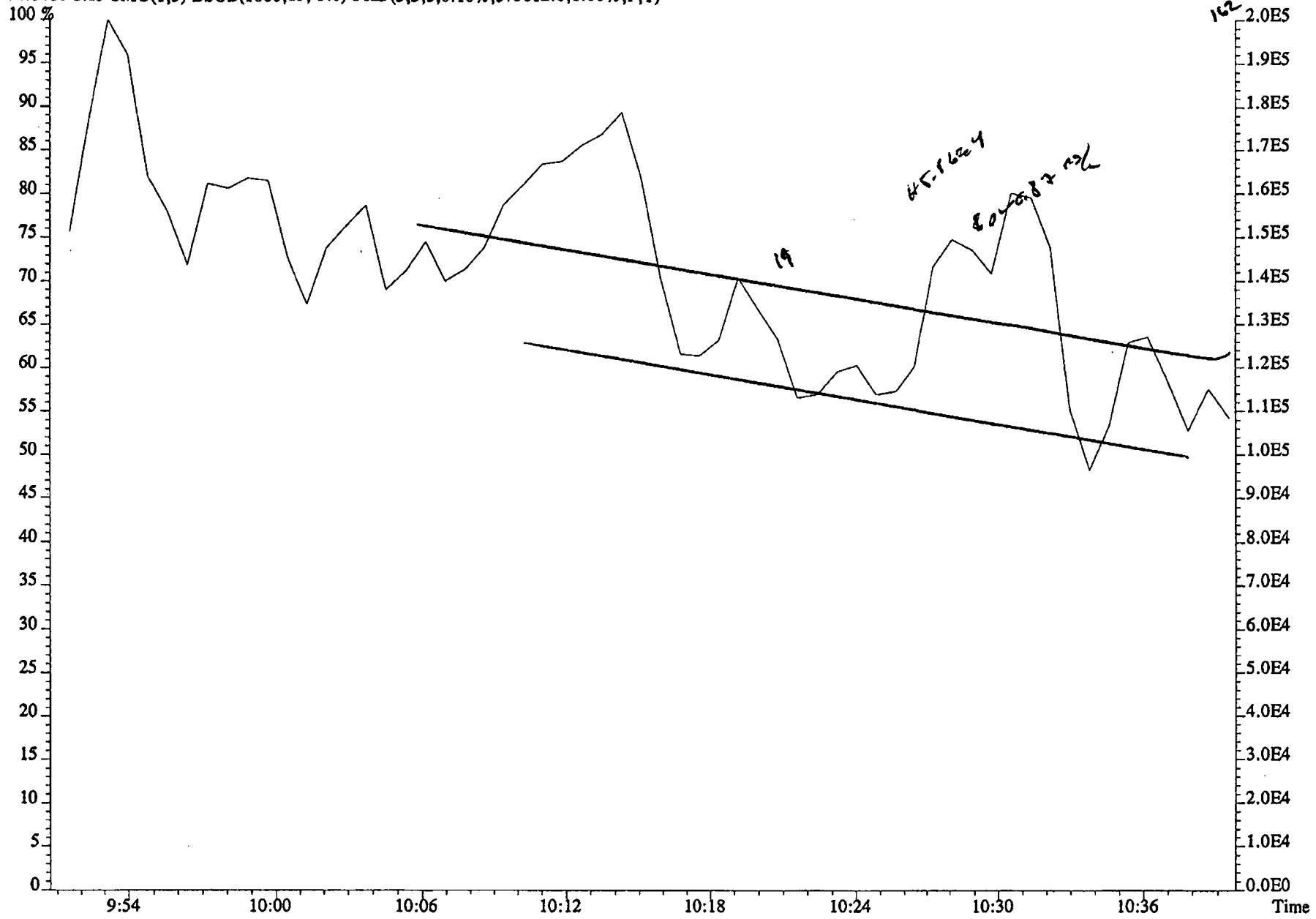
80.0857 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3174504.0,1.00%,F,T)



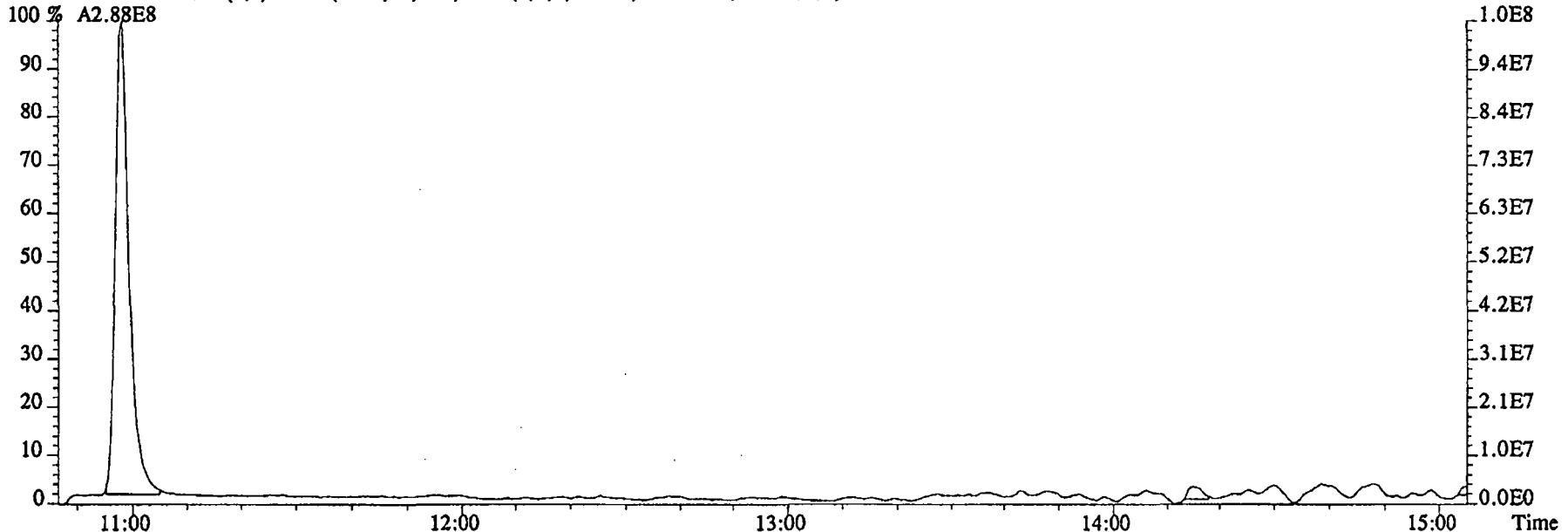
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
80.0857 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3174504.0,1.00%,F,T)



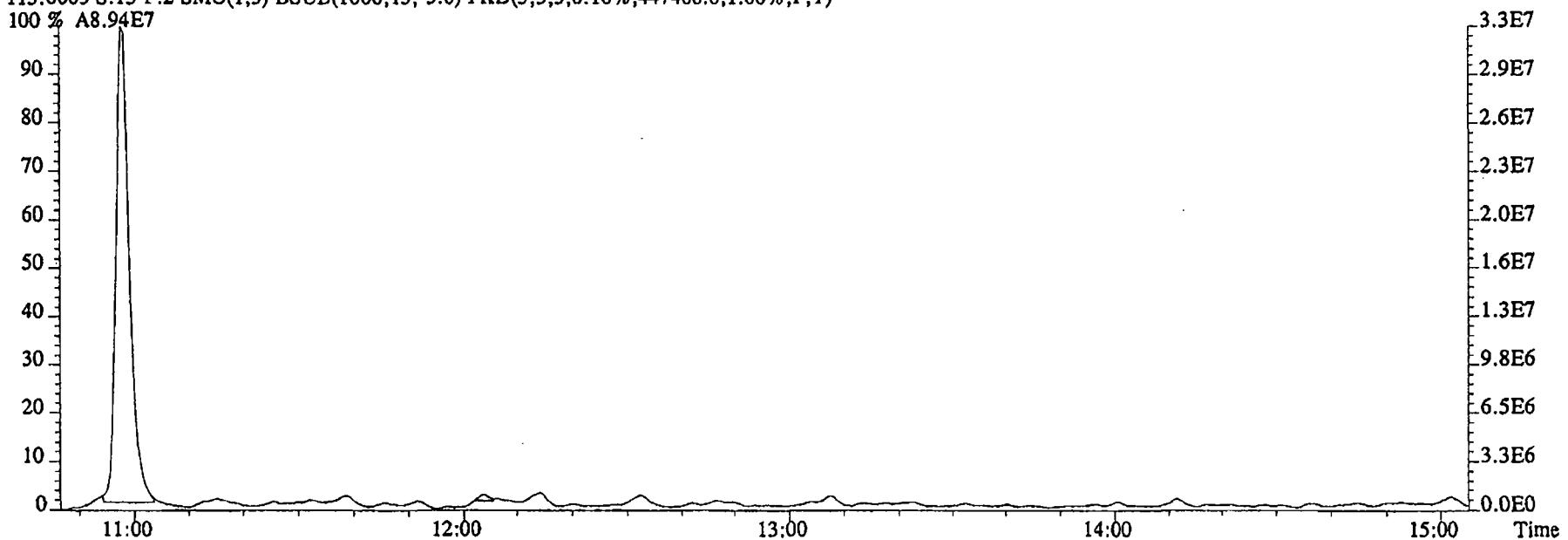
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
74.0480 S:15 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,373612.0,1.00%,F,T)



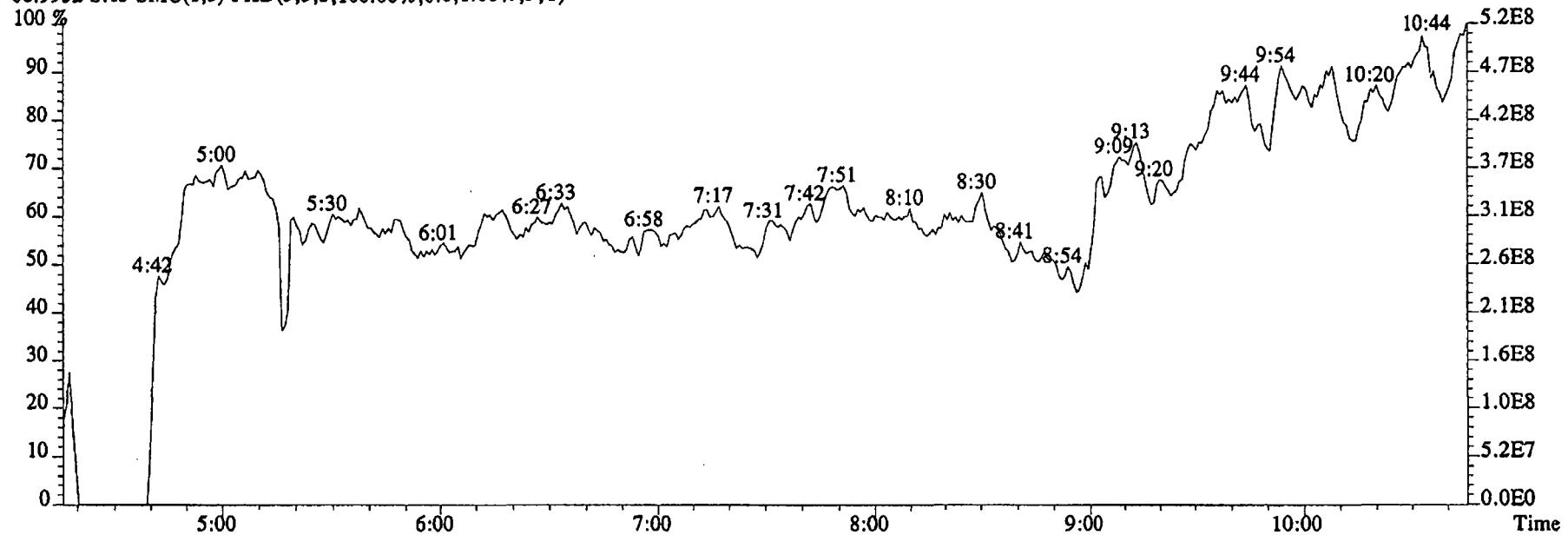
File:03DE04BSSP #1-603 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
113.0032 S:15 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,1997900.0,1.00%,F,T)  
100 % A2.88E8



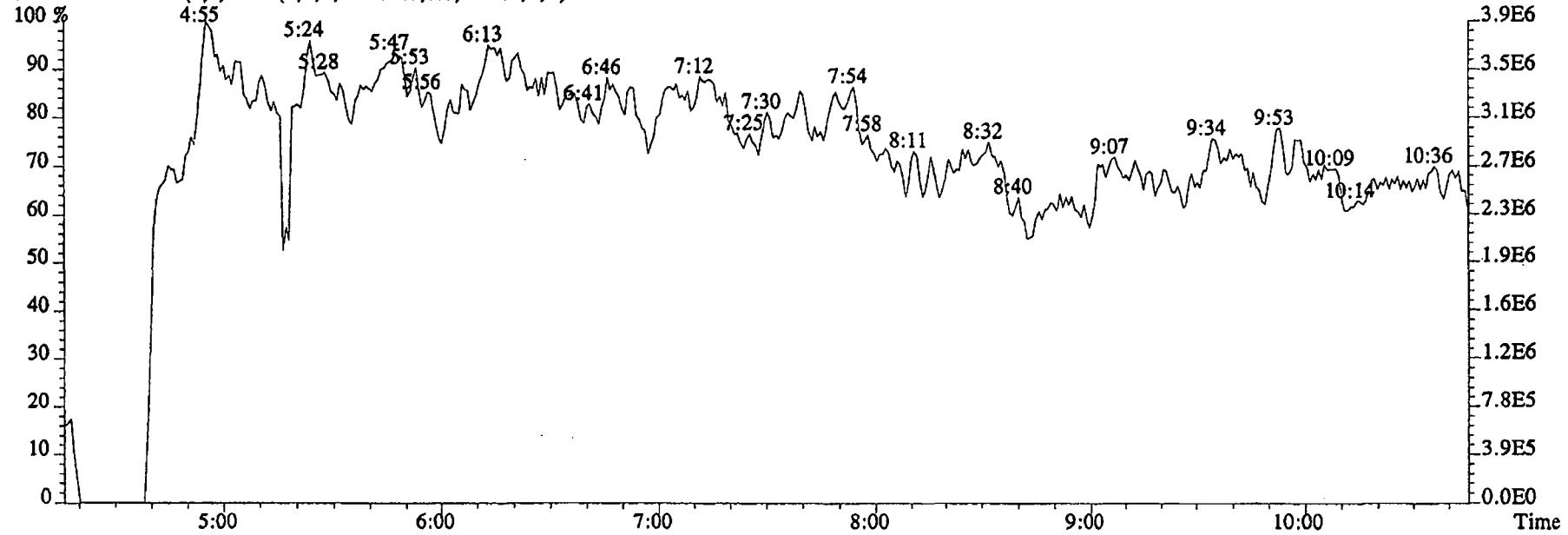
115.0003 S:15 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,447468.0,1.00%,F,T)  
100 % A8.94E7



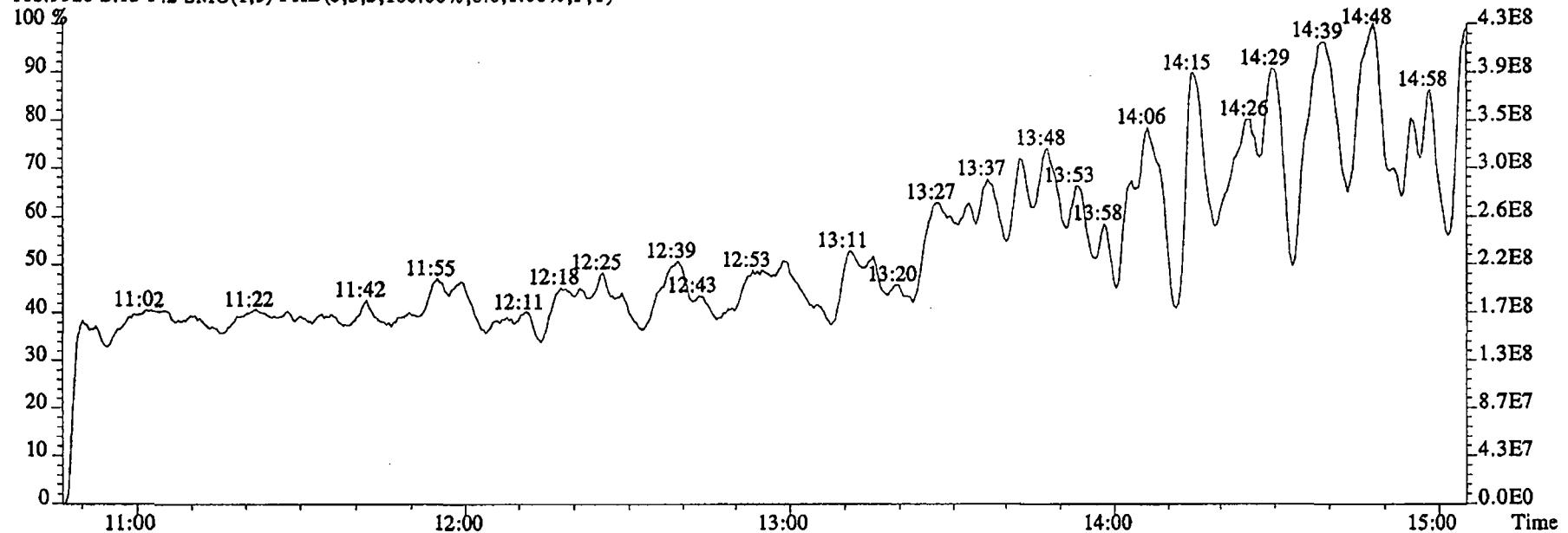
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
 Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
 68.9952 S:15 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



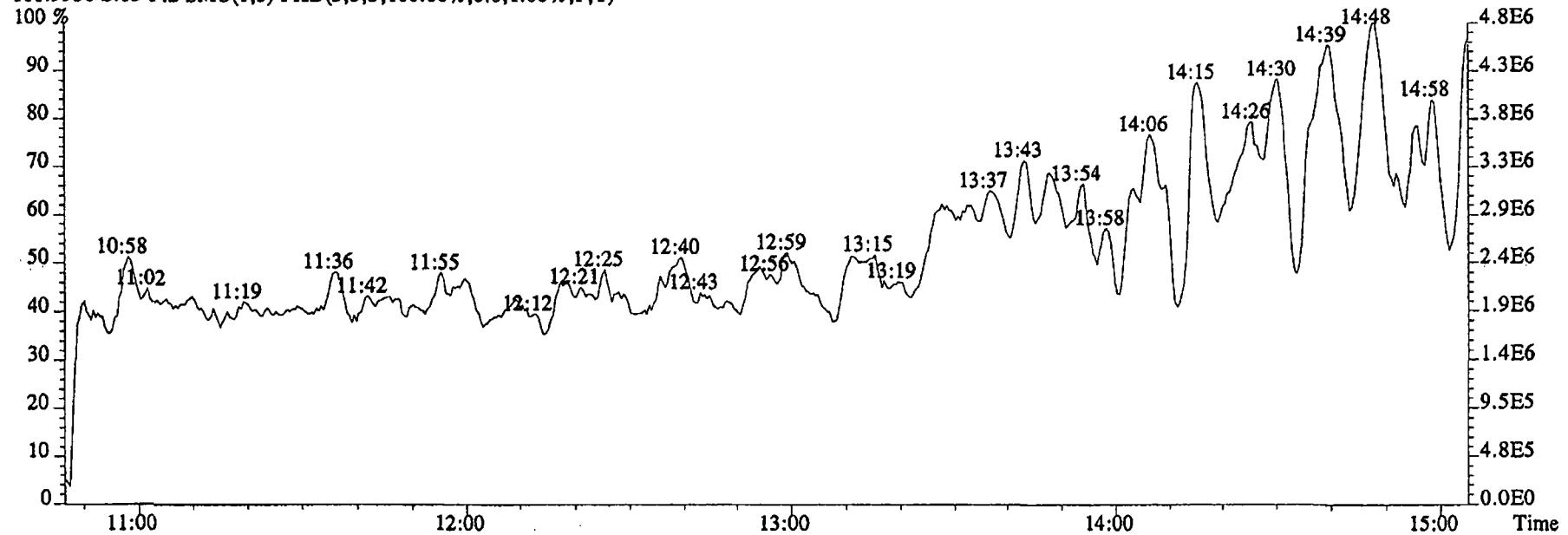
80.9952 S:15 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-603 Acq: 4-DEC-2004 02:45:51 GC EI+ Voltage SIR 70SE  
 Sample#15 Text:GX3L0-1-AC :G4L010311-3 Exp:NDMAVOA  
 118.9920 S:15 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



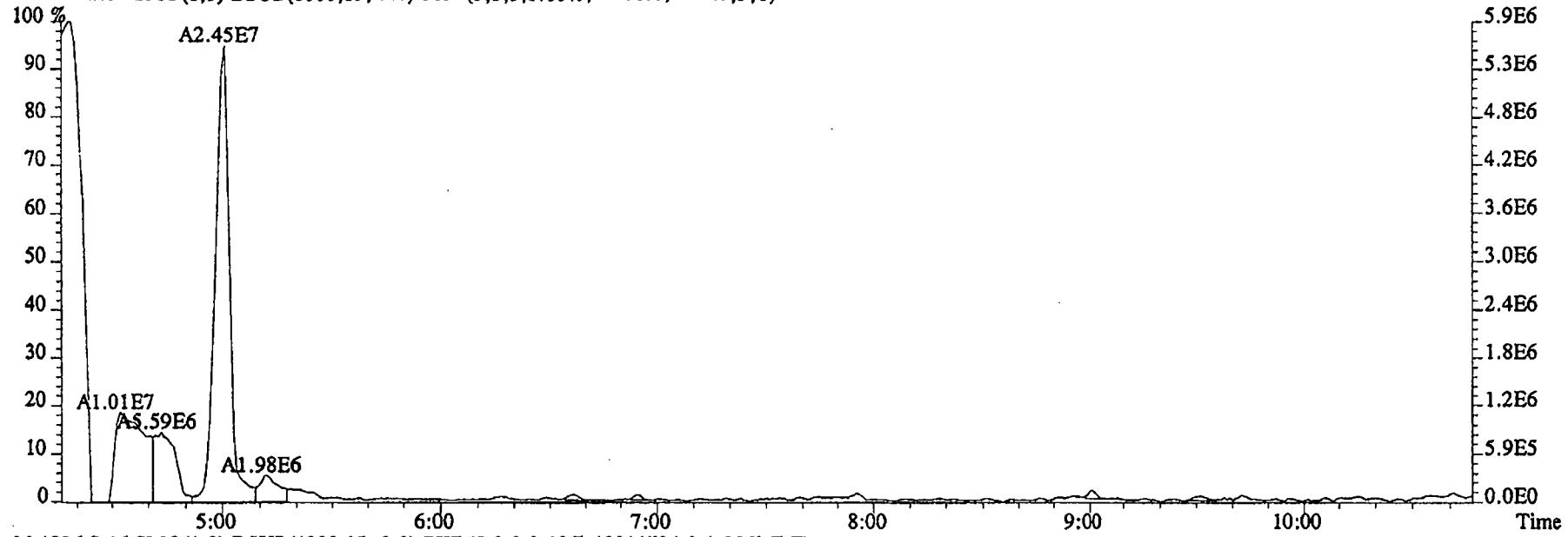
111.9936 S:15 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



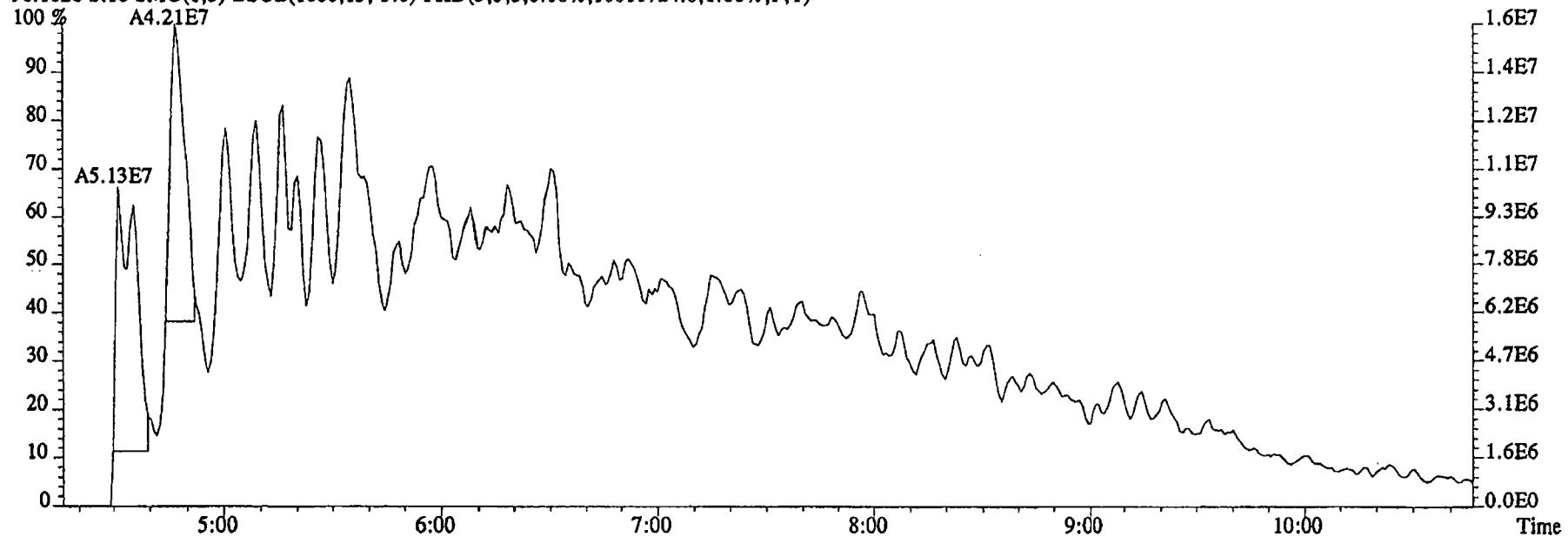
Run text: GX3L1-1-AC      Sample text: GX3L1-1-AC :G4L010311-4  
 Run #14 Filename: 03DE04B5SP S: 16 I: 1 Results: 03DE045SP1625  
 Acquired: 4-DEC-04 03:06:14      Processed: 6-DEC-04 13:29:35  
 Run: 03DE04B5SP Analyte: 1625      Cal: 16251203045SP  
 Factor 1: 1.000 Factor 2: 1.000      Sample size: 0.933 L

Name	Resp	RA	RT	RRF	Conc	<i>PL</i>	EDL	Rec	M
2-Chloropyridine	85243000		10:57	-	304.02		-	-	n
D8-1,4-Dioxane	*		Not Fnd	0.99	*	209.62	*	*	n
1,4-Dioxane	24526500		5:01	1.59	*	*	*	-	n
D5-123-TriChloroPropane	109743000		9:53	4.02	68.60		0.95	64.0	n
1,2,3-TriChloroPropane	*		Not Fnd	0.39	*	<i>LS</i>	3.00	-	n
1,2,3-TriChloroPropane	*		Not Fnd	-	*		-	-	n
D6-NDMA	7393590		10:03	2.49	7.47		3.00	7.0	n
NDMA	*		Not Fnd	1.10	*	<i>LS</i>	<i>6.53 1.25</i>	-	n
2-Chloropyridine	276356000		10:57	-	308.46		-	-	n
						<i>12 - 12.4</i>			
						0			

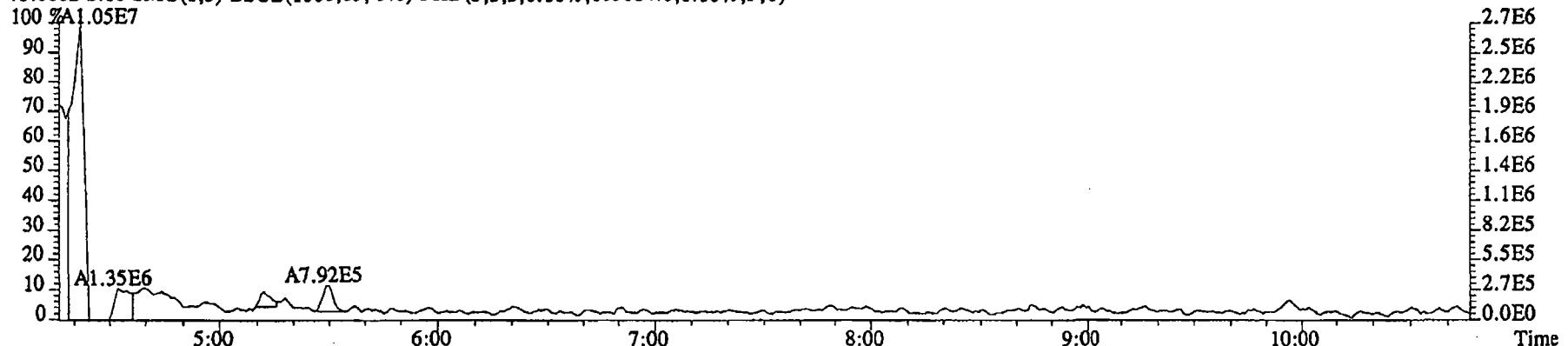
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
 Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
 88.0524 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,44008.0,1.00%,F,T)



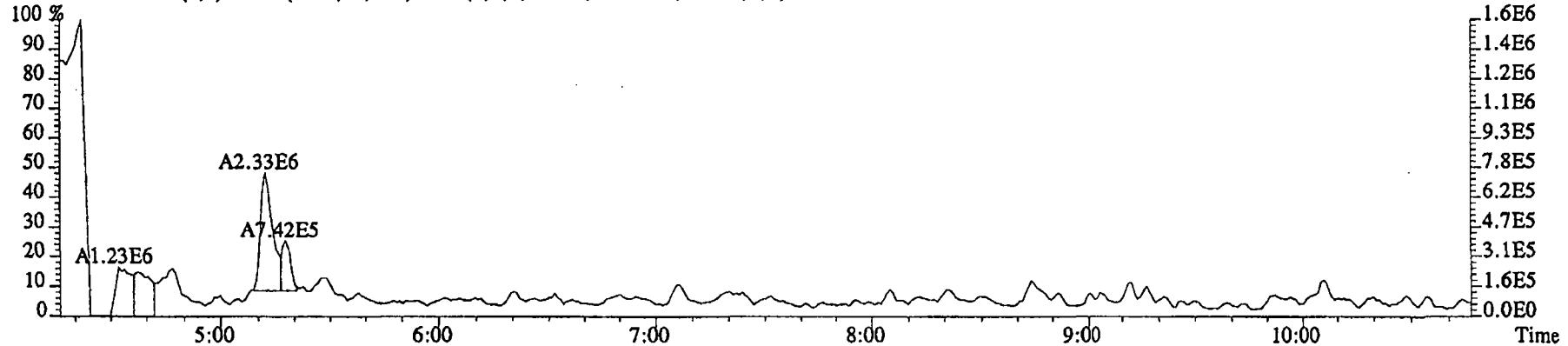
96.1026 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10011724.0,1.00%,F,T)



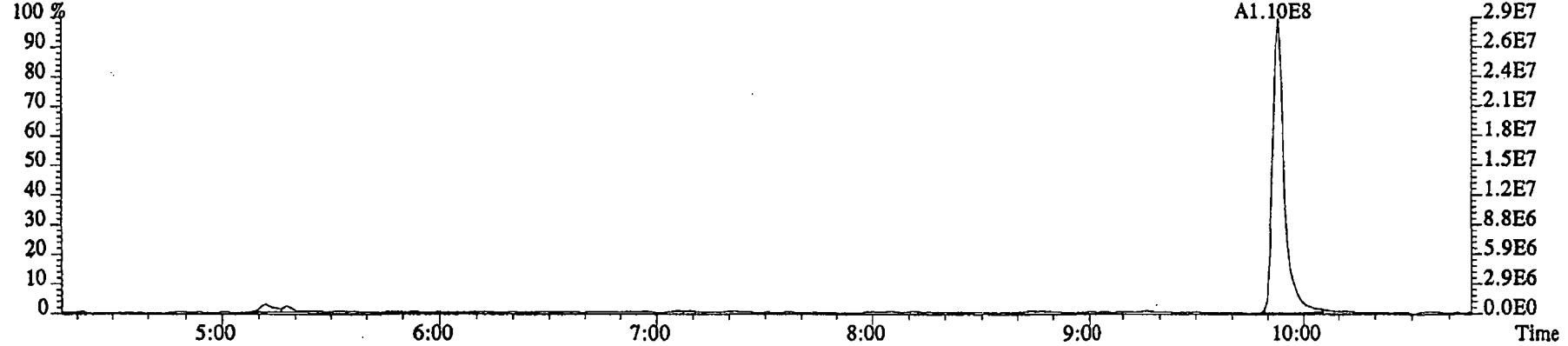
File:03DE04BSSP #1-481 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
 Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
 75.0002 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,105884.0,1.00%,F,T)



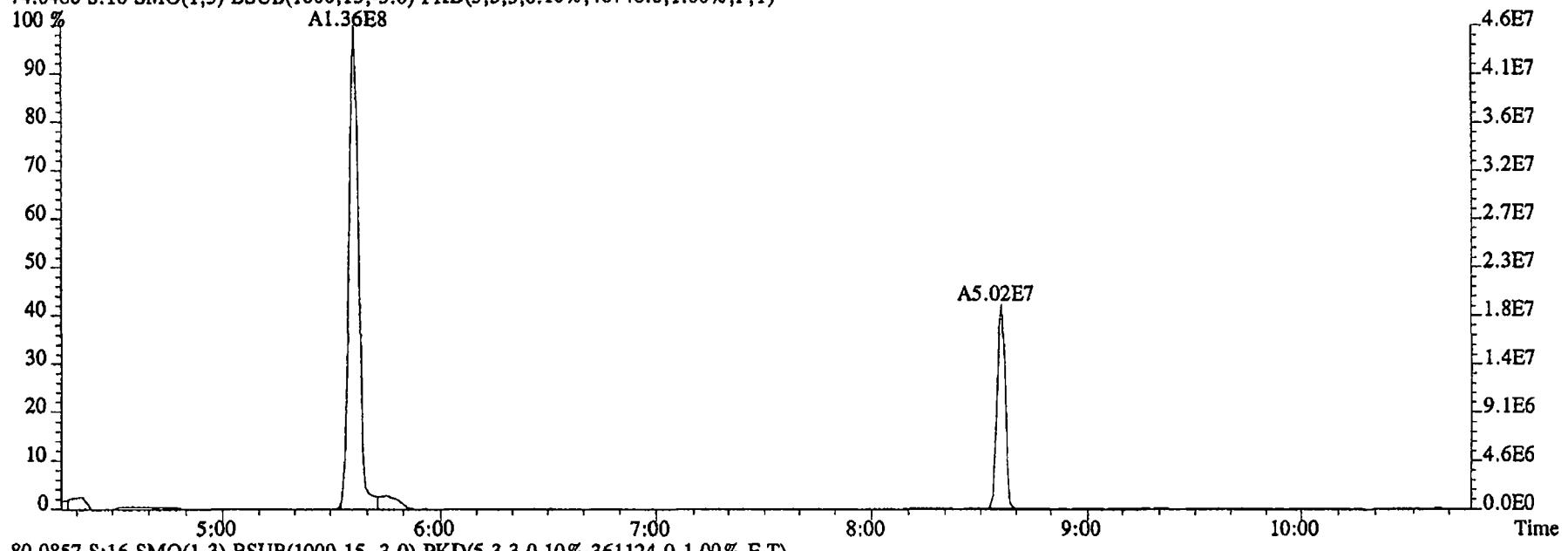
76.9972 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,106924.0,1.00%,F,T)



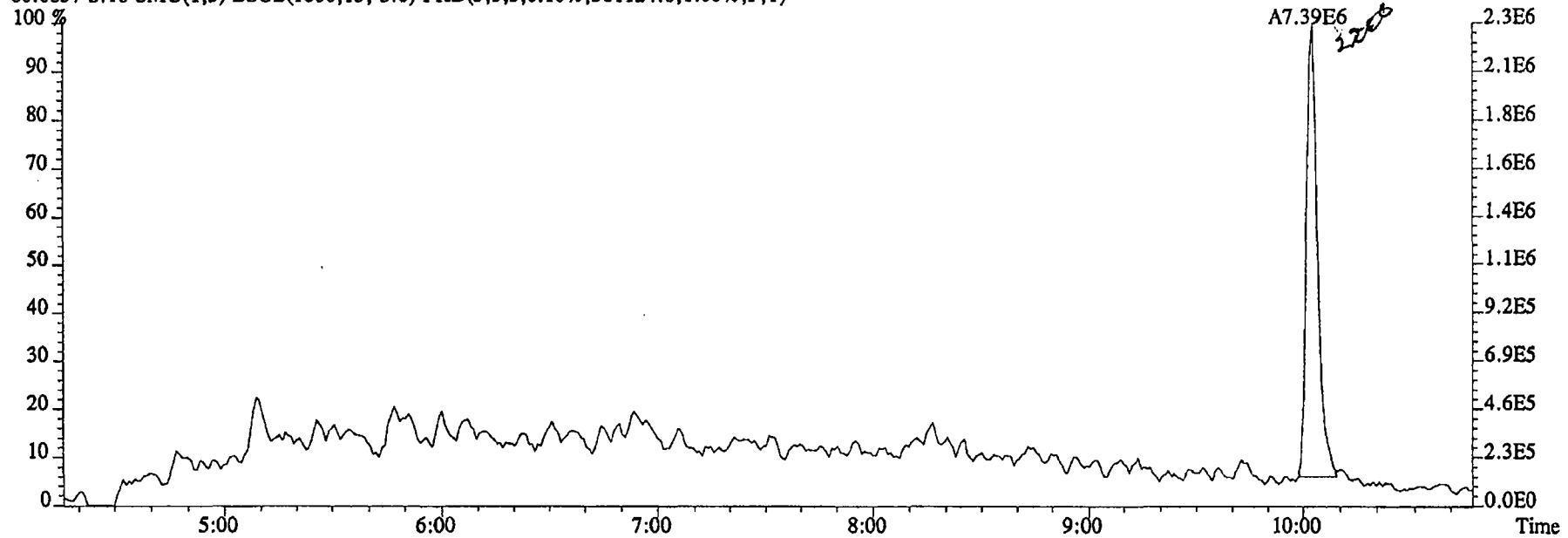
79.0253 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,185336.0,1.00%,F,T)



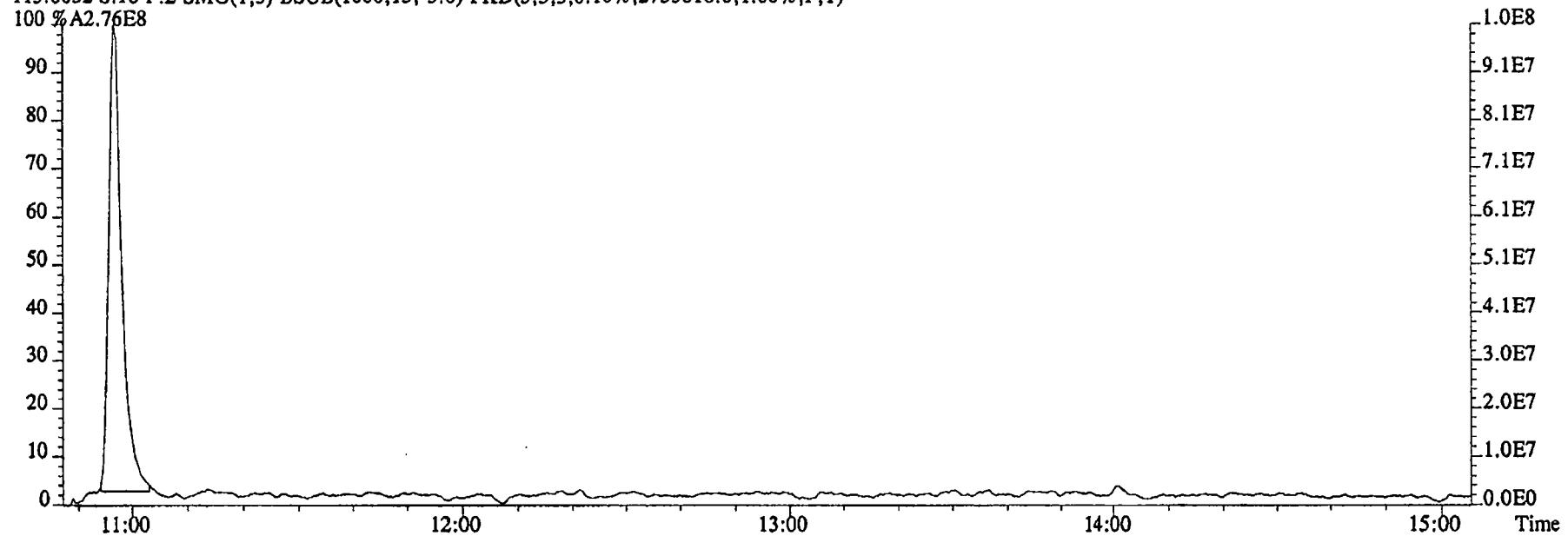
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
74.0480 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,46748.0,1.00%,F,T)



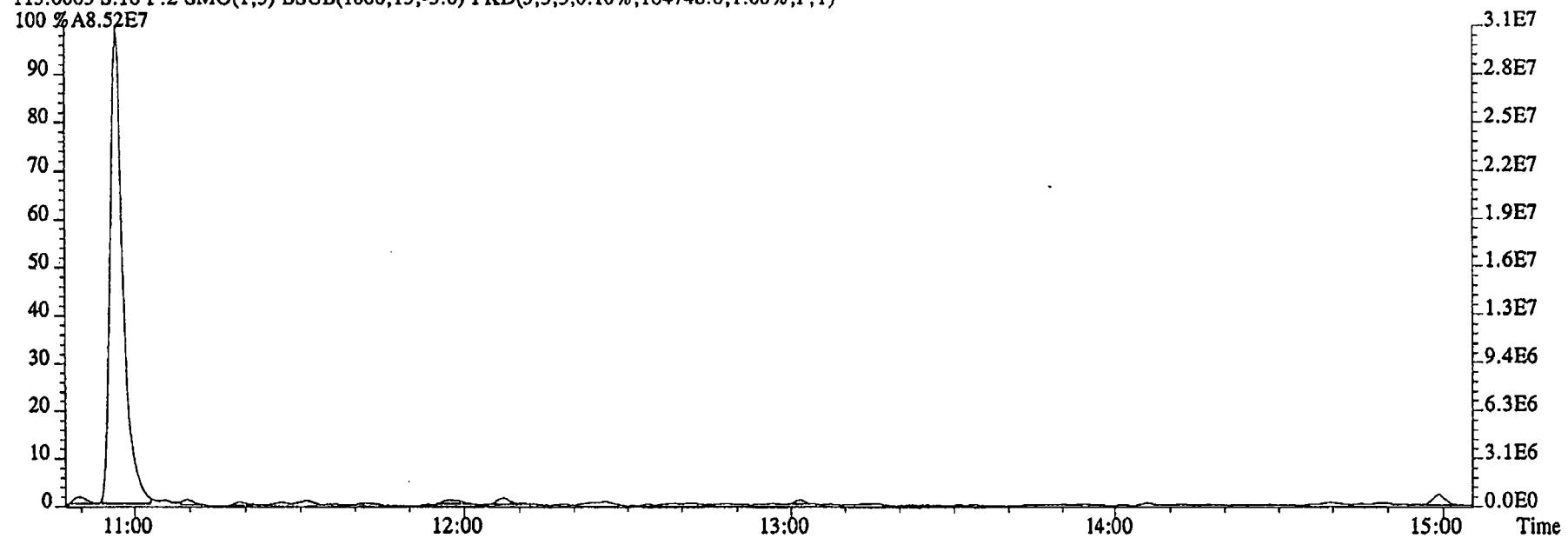
80.0857 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,361124.0,1.00%,F,T)



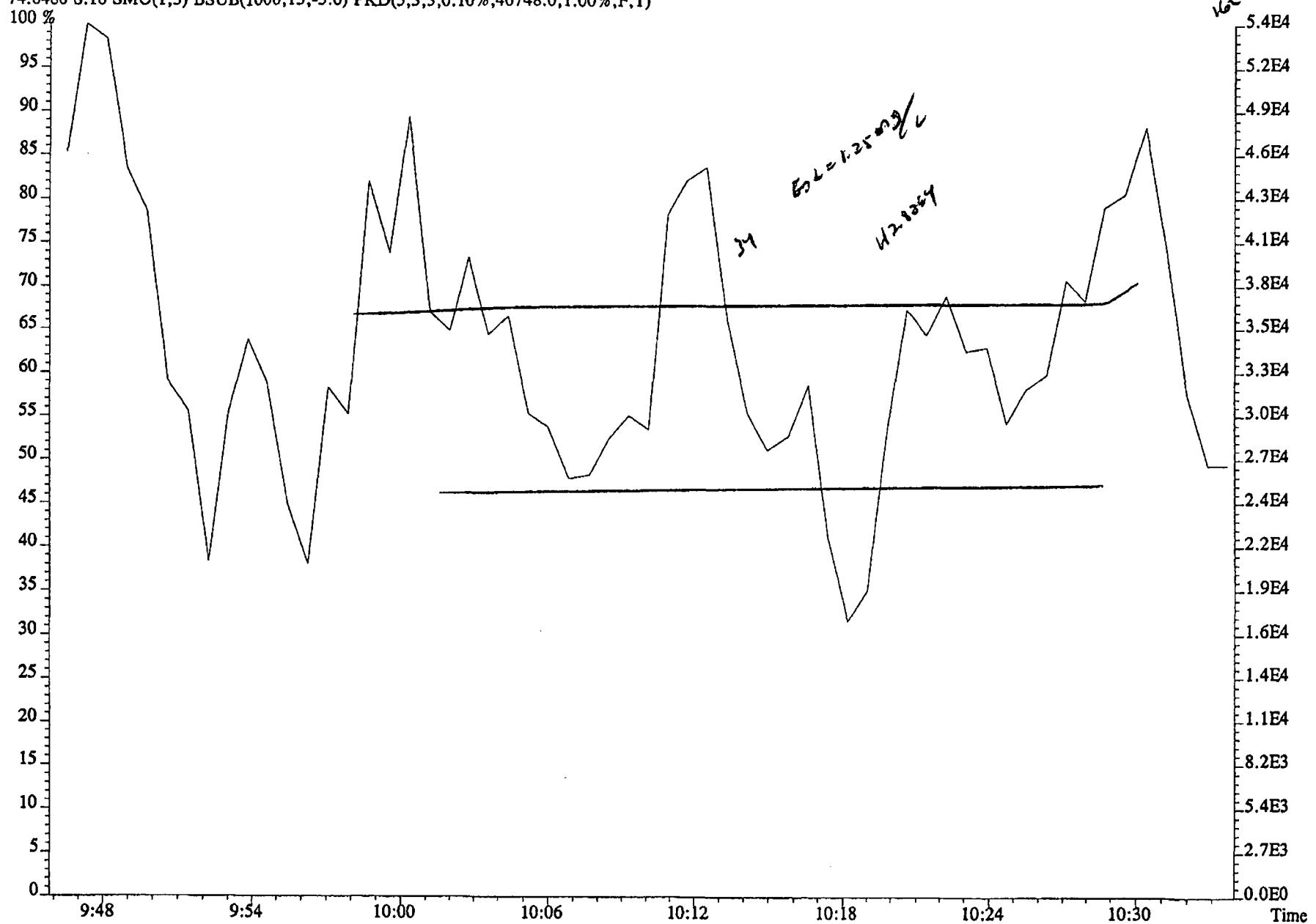
File:03DE04B5SP #1-601 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
113.0032 S:16 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2733616.0,1.00%,F,T)  
100 % A2.76E8



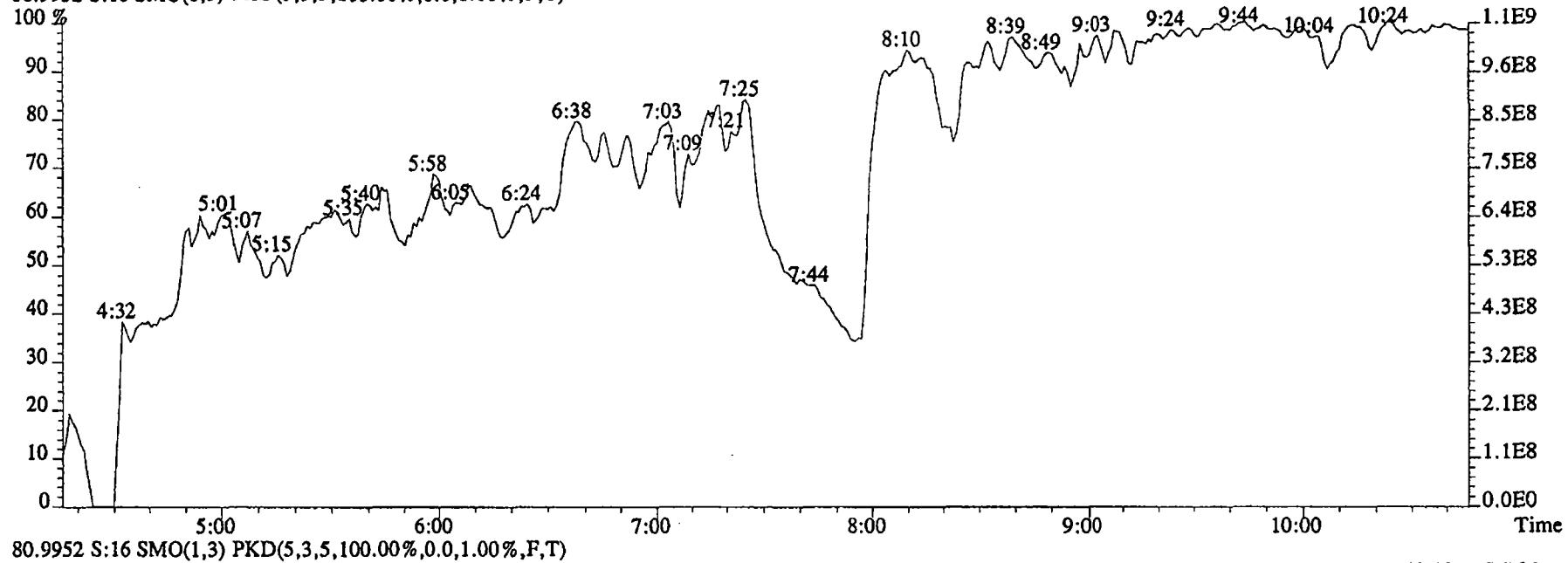
115.0003 S:16 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,164748.0,1.00%,F,T)  
100 % A8.52E7



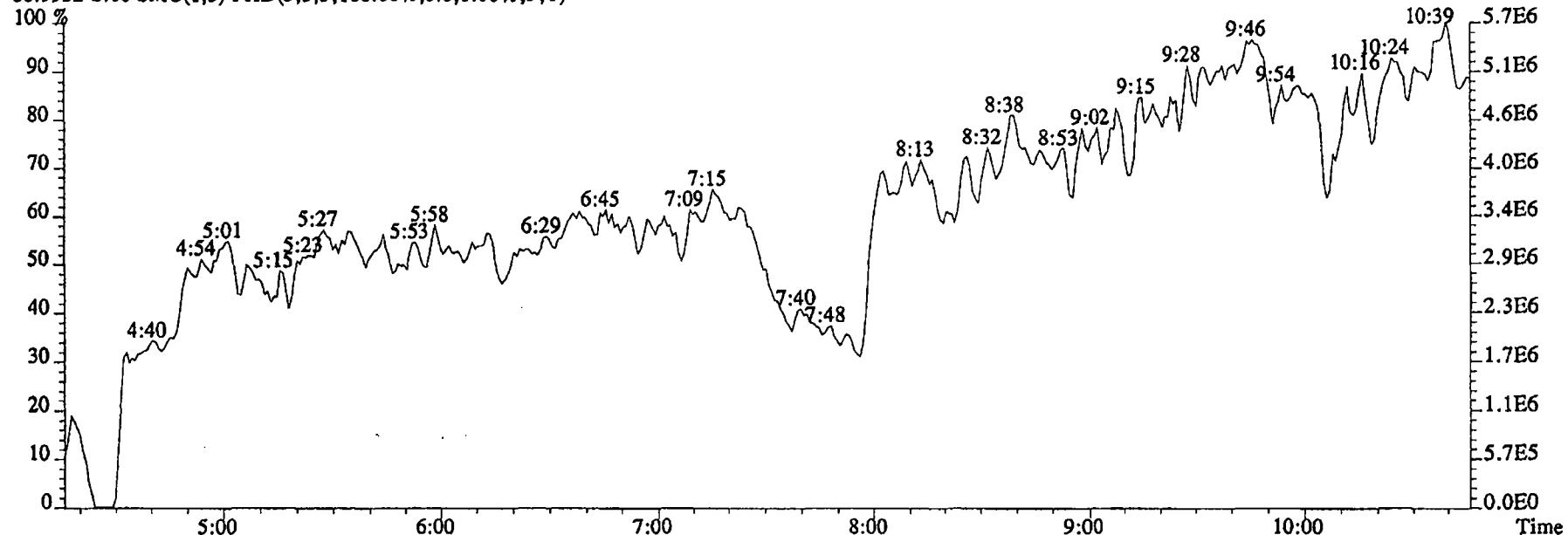
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
 Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
 74.0480 S:16 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,46748.0,1.00%,F,T)



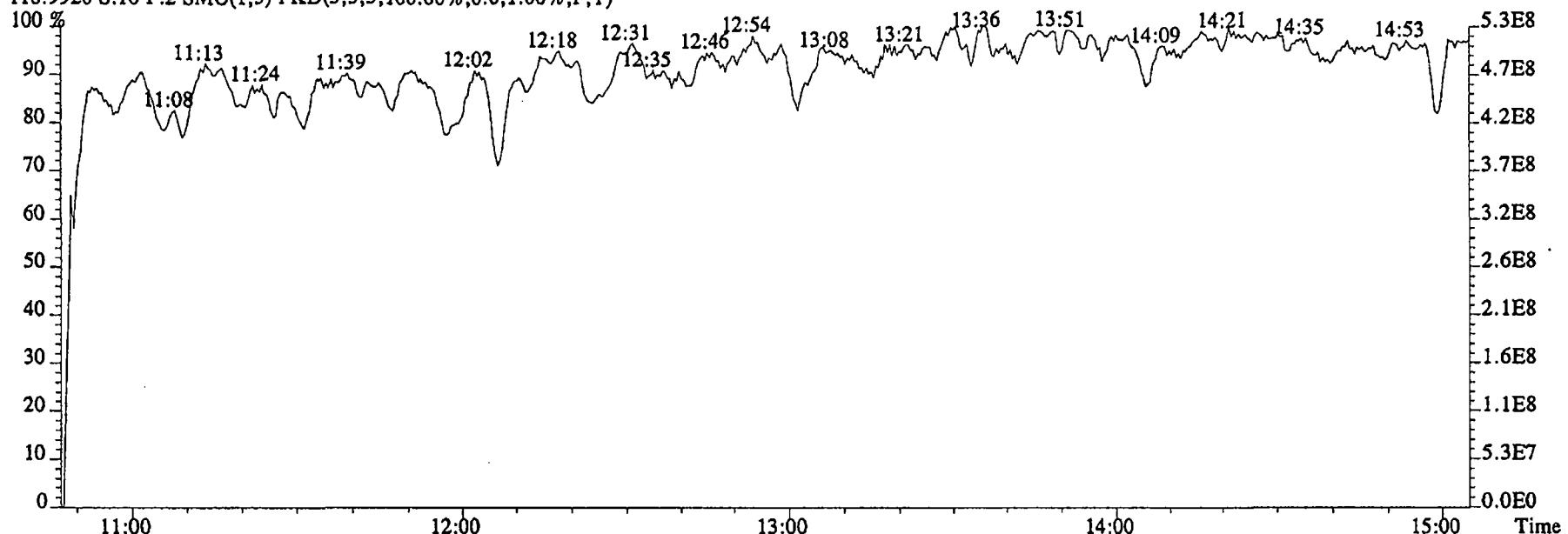
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
 Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
 68.9952 S:16 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



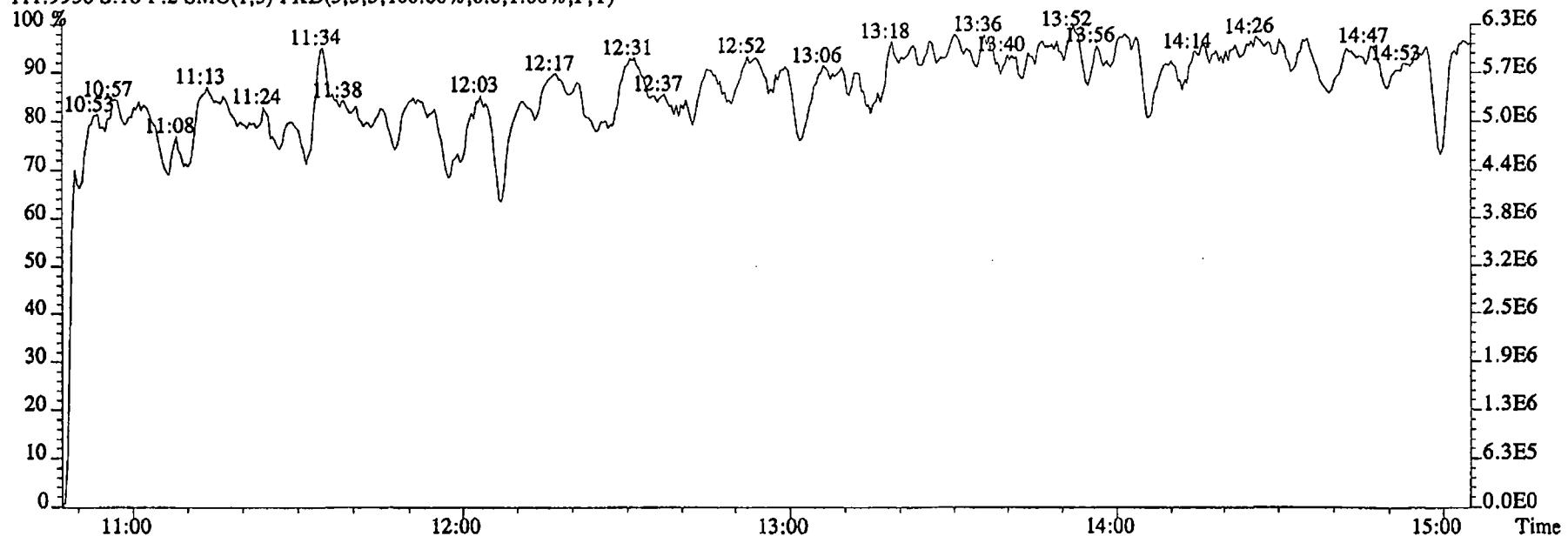
80.9952 S:16 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-601 Acq: 4-DEC-2004 03:06:14 GC EI+ Voltage SIR 70SE  
Sample#16 Text:GX3L1-1-AC :G4L010311-4 Exp:NDMAVOA  
118.9920 S:16 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:16 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



**Daily Standard Checklist**  
**High Resolution**

Method ID 1625

Associated ICAL 16251203045SP

Column ID SP-2331

Instrument ID 5SP

STD ID ST1203J

STD Solution 2350-68C

Analyzed By AM

Date Analyzed 12/14/04

Prepared By KAS

Date Prepared 12/14/04

Reviewed By C pinkall

Date Reviewed 12/14/04

	NOT APPLICABLE	REVIEWED
Standard, CPSM, and Solvent Blank present?	✓	✓
Copy of log-file and Static Resolution present?	✓	✓
CPSM blow up present?	NA	NA
Curve Summary present?	✓	✓
Summary of Method criteria present?	NA	NA
Daily standard within method specified limits?	✓	✓
Analyte retention times correct?	✓	✓
Isotopic ratios within limits?	NA	NA
CPSM valley $\leq$ method specified limits?**	NA	NA
Are chromatographic windows correct?	✓	✓
Samples analyzed within 12 hrs of daily standard?	✓	✓
Manual reintegration's checked and hardcopies included?	NA	NA
Ending Standard and ending Static Resolutions present	NA	NA

COMMENTS:

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\* Method 8290: (beginning) +/- 20% from curve RRFs for native analytes, +/- 30% from curve RRFs for labeled compounds.  
 Method 8290: (ending) +/- 25% from curve RRFs for native analytes, +/- 35% from curve RRFs for labeled compounds.  
 Method 8290 (GB): +/- 30% from curve RRFs for native analytes.

Method 23: See Method 23 Daily Standard Criteria, Table 5.

Method 1613A/1613B: See Method 1613A, Method 1613B or Method 1613B Tetras Daily Standard Criteria,

PAH: +/- 30% from curve RRFs for native and labeled compounds.

PCB: +/- 30% from curve RRFs for native and 50% for labeled compounds.

NCASI 551: +/-20% from curve RRFs for native and labeled compounds.

DBD/DBF: +/-30% from curve RRFs for native analytes; +/- 40% from curve RRFs for labeled compounds.

\*\* Method 23 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and the closest eluters normalized at the smallest peak height of the three peaks (with the 2378 peak being the middle peak).

551/1613A/1613B/8290 CPSM Criteria: 25% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

GB CPSM Criteria: 30% valley between 2378 TCDF (DB-225)/TCDD (DB-5) and its closest eluters normalized to the 2378 peak.

QA-231 DW 05/03

Run text: ST1203J  
 Run #6   Filename 03DE04B5SP S: 7  
 Acquired: 4-DEC-04   00:03:00  
 Run: 03DE04B5SP   Analyte: 1625

File text: ST1203J :CS3 2350-68C  
 I: 1  
 Processed: 6-DEC-04 13:29:32  
 Cal: 16251203045SP   Results: 03DE045SP1625

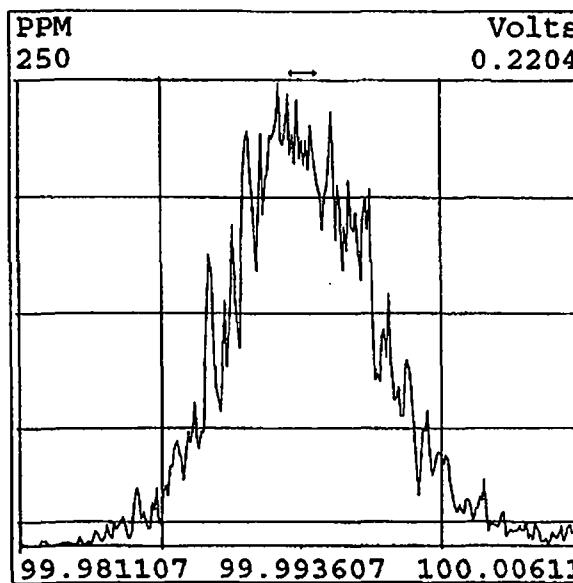
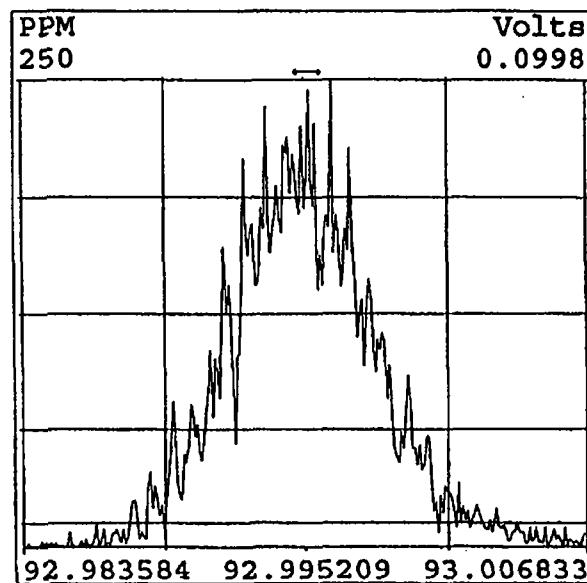
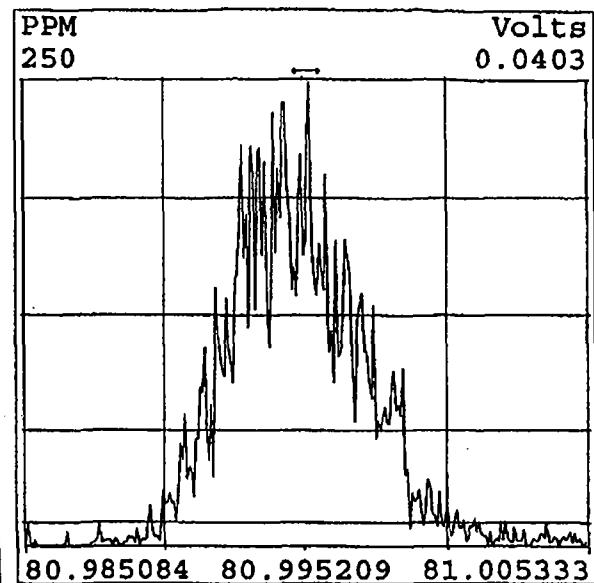
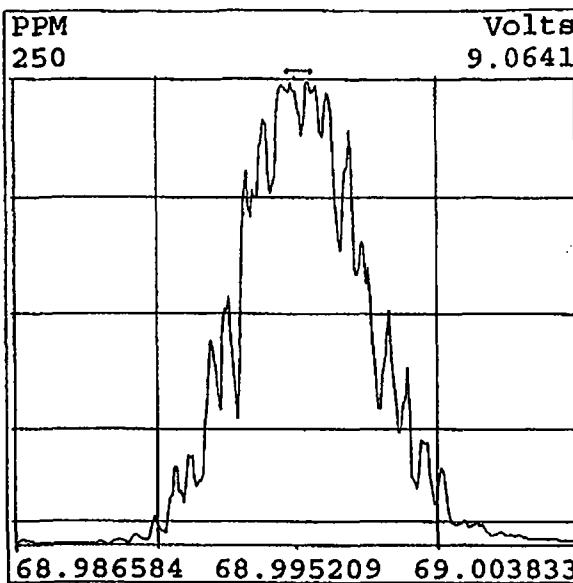
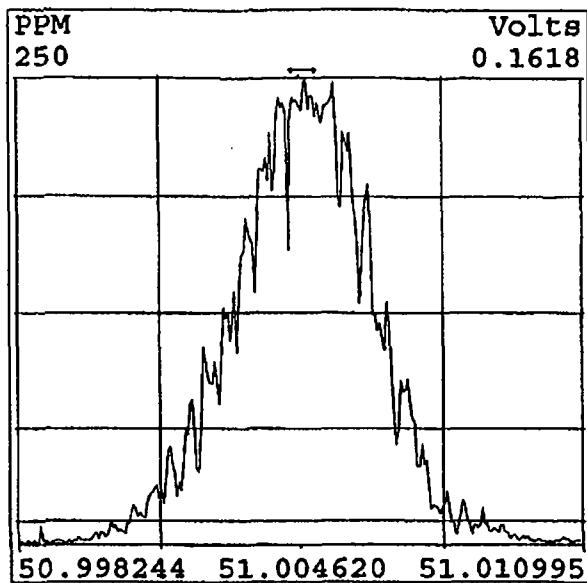
Name	Resp	RA	RT	RRF	Amount	Dev'n	Mod?
2-Chloropyridine	84402000		10:57	-	200.00	-	n
D8-1,4-Dioxane	434497000		5:01	1.03	1000.00	4.3	n
1,4-Dioxane	30921800		5:02	1.42	50.00	-10.6	n
D5-123-TriChloroPropane	168112000		9:53	3.98	100.00	-1.0	n
1,2,3-TriChloroPropane	29882600		9:57	0.36	50.00	-9.1	n
1,2,3-TriChloroPropane	93184800		9:57	-	50.00	-	n
D6-NDMA	103878000		10:04	2.46	100.00	-1.0	n
NDMA	54663200		10:03	1.05	50.00	-4.5	n
2-Chloropyridine	268304000		10:57	-	200.00	-	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
03DE04B5SP 1		ST1203E	CS1 2350-68A				1.000	
03DE04B5SP 2		ST1203F	CS2 2350-68B				1.000	
03DE04B5SP 3		ST1203G	CS3 2350-68C				1.000	
03DE04B5SP 4		ST1203H	CS4 2350-68D				1.000	
03DE04B5SP 5		ST1203I	CS5 2350-68E				1.000	
03DE04B5SP 6		SB1203	Solvent Blank DCM				1.000	
03DE04B5SP 7		ST1203J	CS3 2350-68C				1.000	
03DE04B5SP 8		SB1203A	Solvent Blank DCM				1.000	
03DE04B5SP 9		GX8C2-1-AAB	G4L010311-1MB	500	1625/WATER	VS51	1.000	L
03DE04B5SP 10		GX8C2-1-ACC	G4L010311-1LCS	500	1625/WATER		1.000	L
03DE04B5SP 11		GX3LR-1-AA	G4L010311-1	500	1625/WATER		0.940	L
03DE04B5SP 12		GX3LW-1-AC	G4L010311-2	500	1625/WATER		0.979	L
03DE04B5SP 13		GX3LW-1-AFS	G4L010311-2MS	500	1625/WATER		0.990	L
03DE04B5SP 14		GX3LW-1-AGD	G4L010311-2SD	500	1625/WATER		0.917	L
03DE04B5SP 15		GX3L0-1-AC	G4L010311-3	500	1625/WATER		0.985	L
03DE04B5SP 16		GX3L1-1-AC	G4L010311-4	500	1625/WATER		0.933	L
03DE04B5SP 17		GX5HC-1-AA	G4L020252-1	500	1625/WATER		0.962	L
03DE04B5SP 18		GX6EX-1-AC	G4L020335-1	500	1625/WATER		0.988	L
03DE04B5SP 19		GX6FF-1-AC	G4L020335-2	500	1625/WATER		0.980	L
03DE04B5SP 20		GX6FQ-1-AA	G4L020335-3	500	1625/WATER		0.987	L
03DE04B5SP 21		GX6F1-1-AC	G4L020335-4	500	1625/WATER		0.971	L
03DE04B5SP 22		SB1203B	Solvent Blank DCM				1.000	
03DE04B5SP 23		MDLNNDMAS-MB	MDL-NDMA-SOIL-MB	500	1625/SOLID	VS51	10.000	g
03DE04B5SP 24		MDLNNDMAS-L1	MDL-NDMA-SOIL-LCS1	500	1625/SOLID		10.000	g
03DE04B5SP 25		MDLNNDMAS-L2	MDL-NDMA-SOIL-LCS2	500	1625/SOLID		10.000	g
03DE04B5SP 26		MDLNNDMAS-L3	MDL-NDMA-SOIL-LCS3	500	1625/SOLID		10.000	g
03DE04B5SP 27		MDLNNDMAS-L4	MDL-NDMA-SOIL-LCS4	500	1625/SOLID		10.000	g
03DE04B5SP 28		MDLNNDMAS-L5	MDL-NDMA-SOIL-LCS5	500	1625/SOLID		10.000	g
03DE04B5SP 29		MDLNNDMAS-L6	MDL-NDMA-SOIL-LCS6	500	1625/SOLID		10.000	g
03DE04B5SP 30		MDLNNDMAS-L7	MDL-NDMA-SOIL-LCS7	500	1625/SOLID		10.000	g
03DE04B5SP 31		ST1203K	CS3 2350-68C				1.000	
03DE04B5SP 32							1.000	
03DE04B5SP 33							1.000	
03DE04B5SP 34							1.000	
03DE04B5SP 35							1.000	
03DE04B5SP 36							1.000	
03DE04B5SP 37							1.000	

AM 12-03-04

log file checked  
12-04-04 am

Peak Locate Examination: 3-DEC-2004:21:57 File:03DE04B5SP  
Experiment:NDMAVOA Function:1 Reference:PFK



Page 1 of 1

Run: 03DE04B5SP1 Analyte: 1625

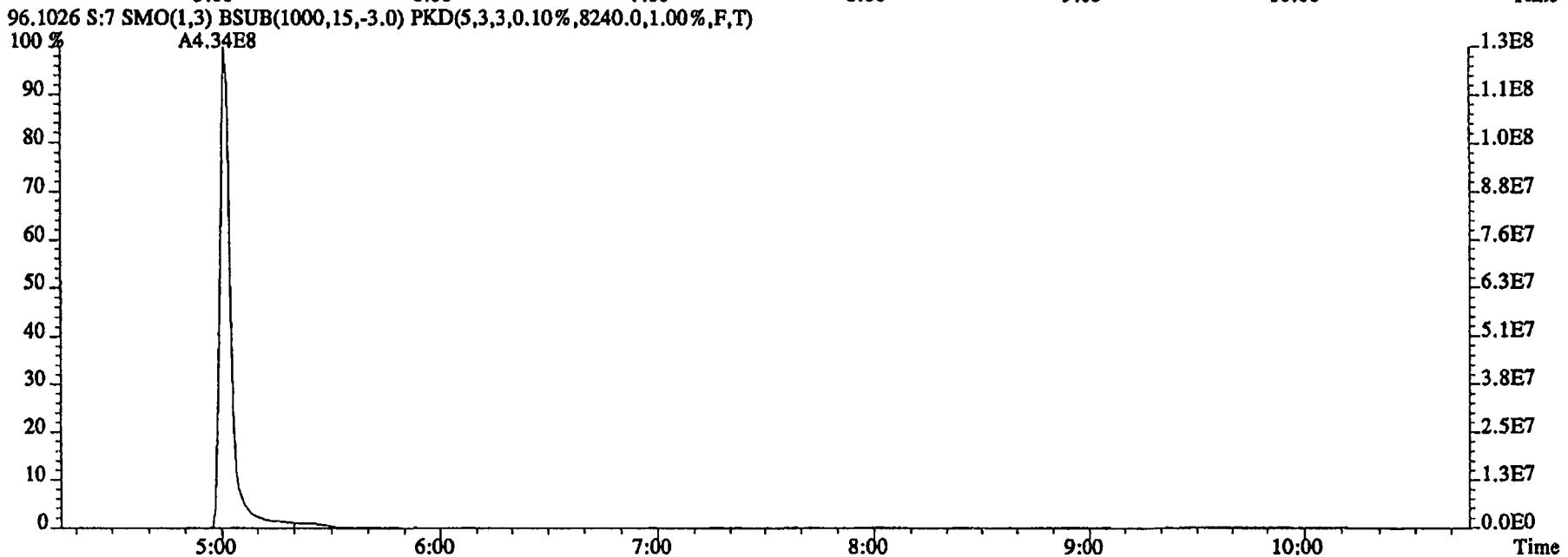
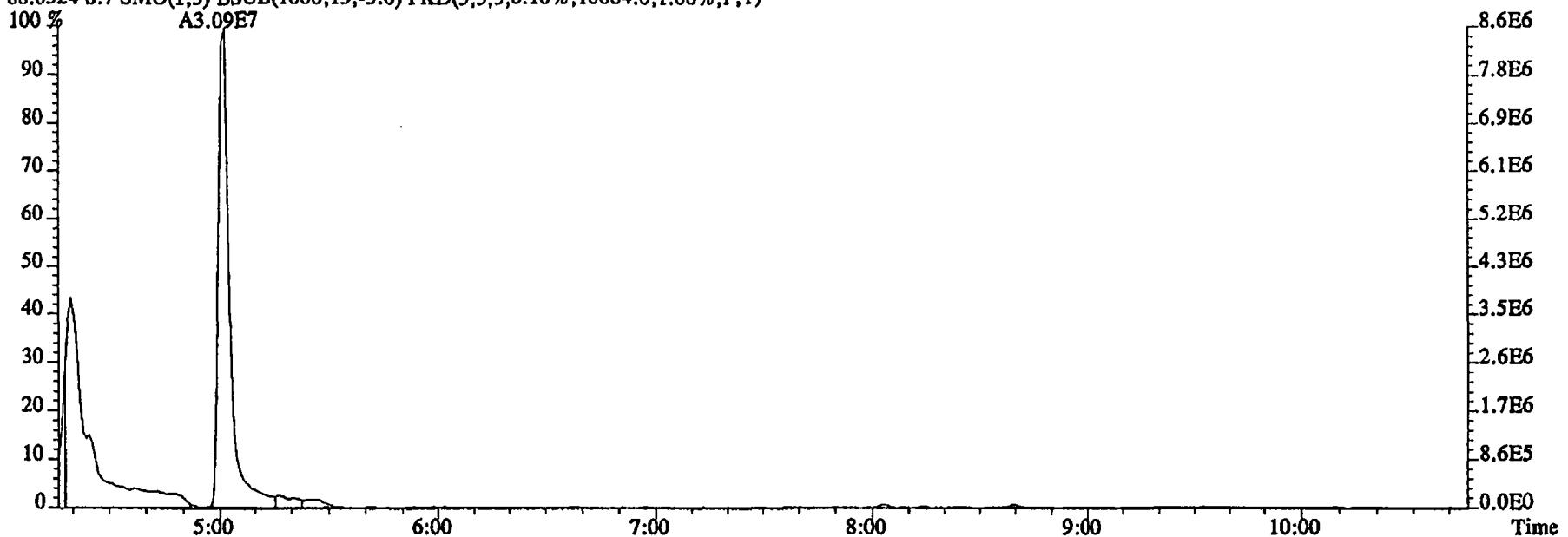
Cal: 16251203045SP

ST1203E :CS1 2350-68A  
ST1203H :CS4 2350-68DST1203F :CS2 2350-68B  
ST1203I :CS5 2350-68E

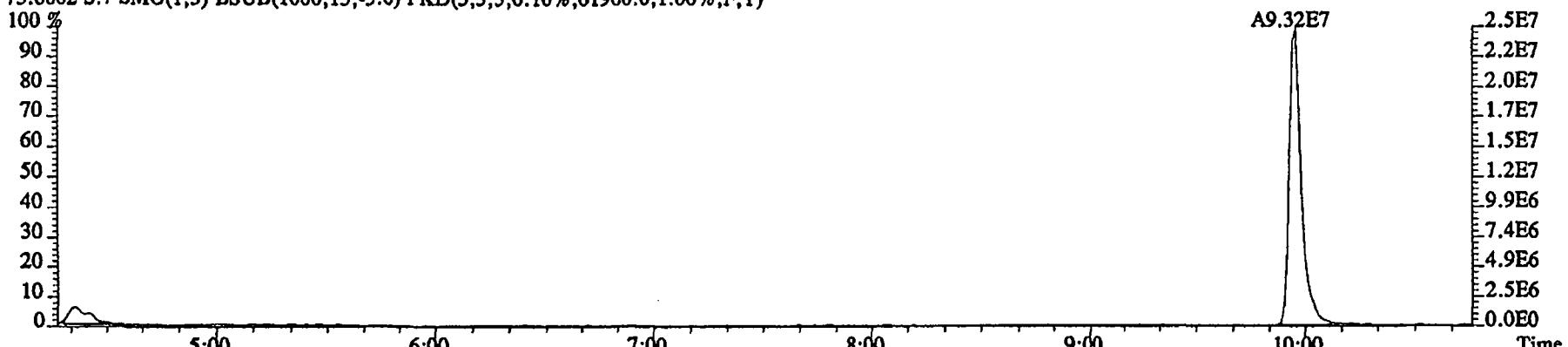
ST1203G :CS3 2350-68C

Name	Mean	S. D.	%RSD	03DE04B5SP03DE04B5SP03DE04B5SP03DE04B5SP03DE04B5SP				
				S1 RRF1	S2 RRF2	S3 RRF3	S4 RRF4	S5 RRF5
2-Chloropyridine	-	-	- %	-	-	-	-	-
D8-1,4-Dioxane	0.987	0.060	6.10 %	1.08	1.01	0.97	0.93	0.95
1,4-Dioxane	1.593	0.108	6.81 %	1.78	1.57	1.51	1.54	1.55
D5-123-TriChloroPropane	4.023	0.096	2.38 %	4.16	3.94	3.99	3.94	4.08
1,2,3-TriChloroPropane	0.391	0.065	16.7 %	0.51	0.36	0.34	0.37	0.37
1,2,3-TriChloroPropane	-	-	- %	-	-	-	-	-
D6-NDMA	2.487	0.063	2.55 %	2.55	2.44	2.40	2.50	2.54
NDMA	1.102	0.063	5.72 %	1.19	1.02	1.07	1.11	1.13
2-Chloropyridine	-	-	- %	-	-	-	-	-

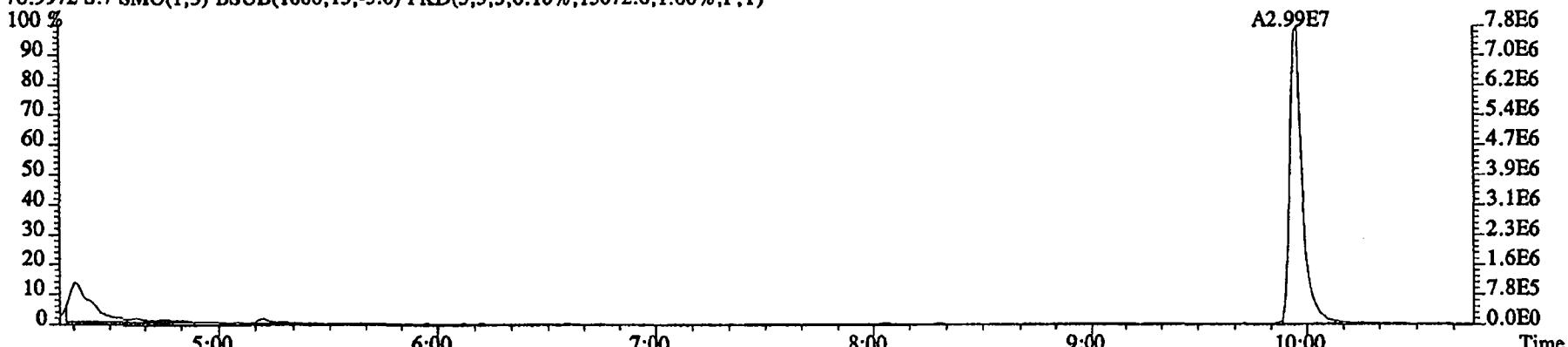
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Sample#7 Text:ST1203J :CS3 2350-68C Exp:NDMAVOA  
88.0524 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10684.0,1.00%,F,T)



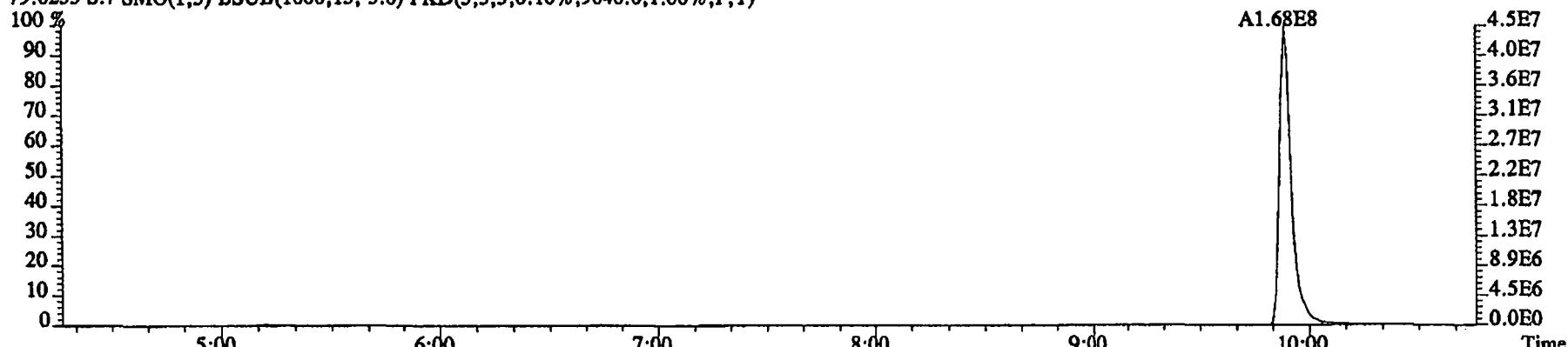
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 Sample#7 Text:ST1203J :CS3 2350-68C Exp:NDMAVOA  
 75.0002 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,61960.0,1.00%,F,T)



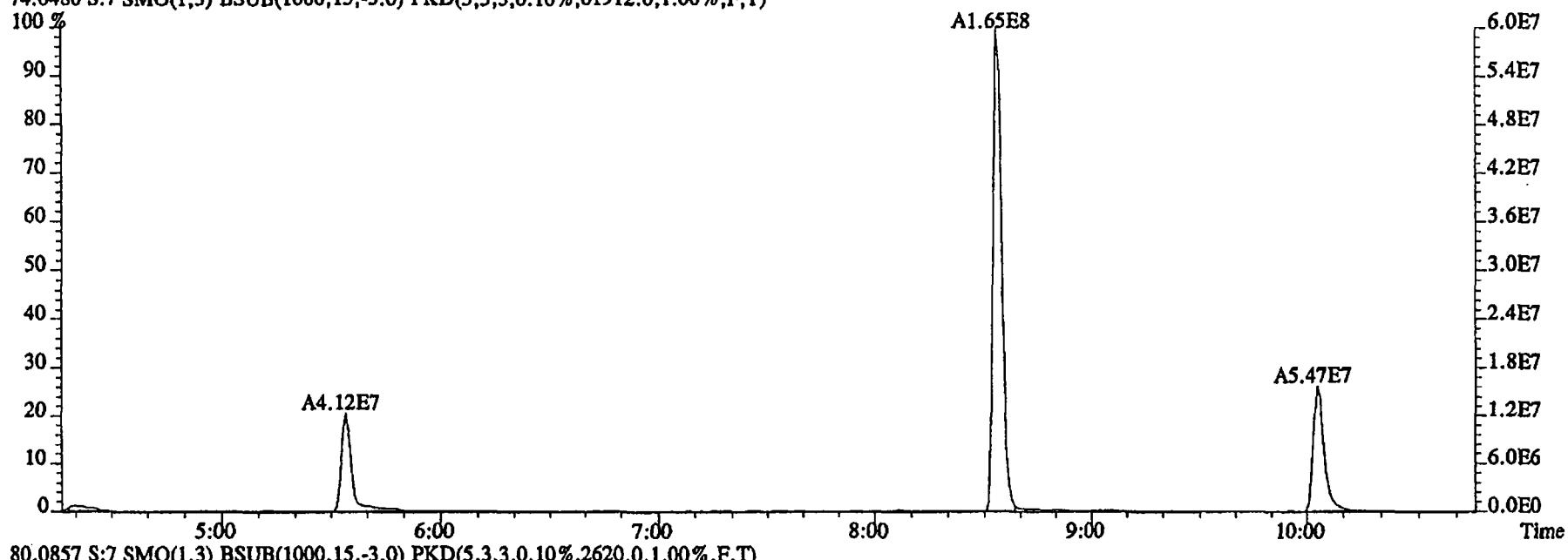
76.9972 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,15072.0,1.00%,F,T)



79.0253 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9040.0,1.00%,F,T)

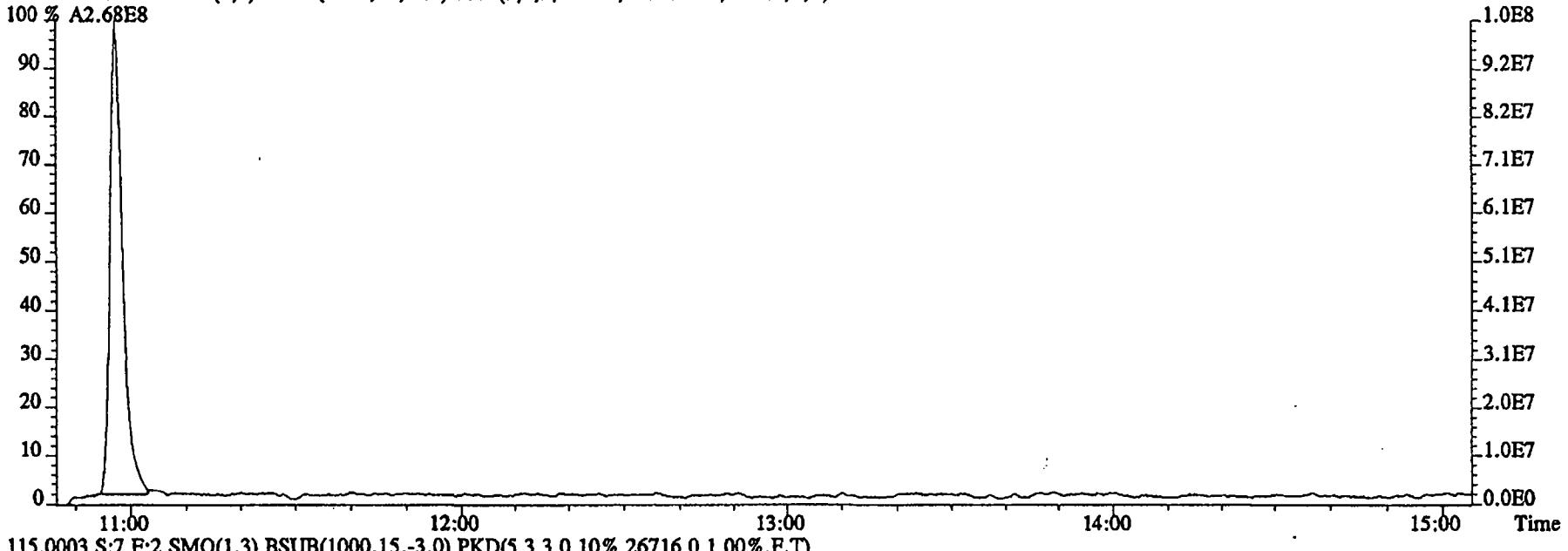


File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:03:00 GC EI+ Voltage SIR 70SE  
Sample#7 Text:ST1203J CS3 2350-68C Exp:NDMAVOA  
74.0480 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,61912.0,1.00%,F,T)

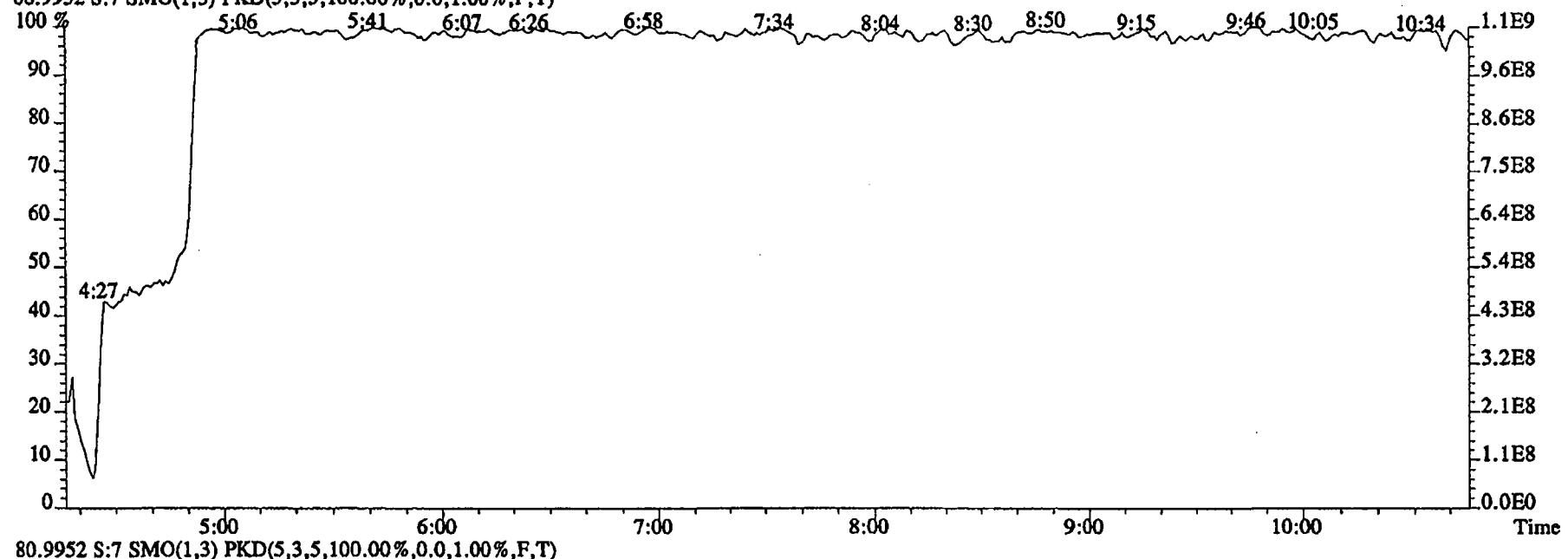


80.0857 S:7 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2620.0,1.00%,F,T)

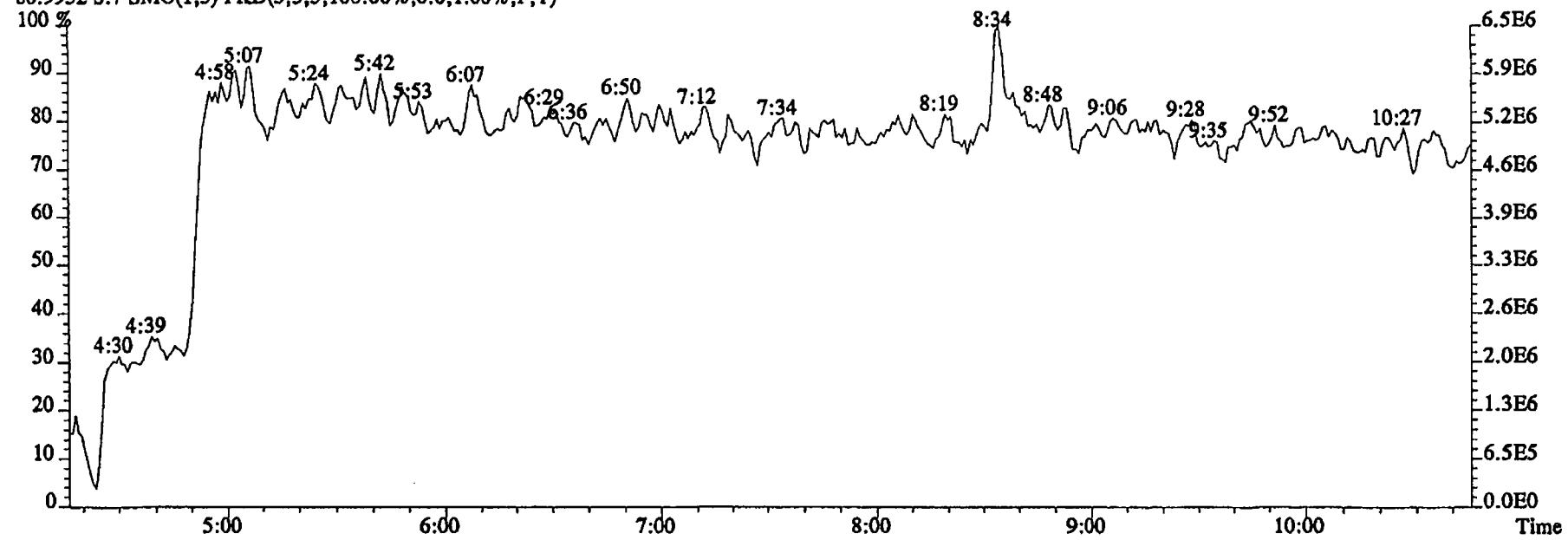
File:03DE04B5SP #1-603 Acq: 4-DEC-2004 00:03:00 GC EI + Voltage SIR 70SE  
Sample#7 Text:ST1203J ;CS3 2350-68C Exp:NDMAVOA  
113.0032 S:7 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2473000.0,1.00%,F,T)



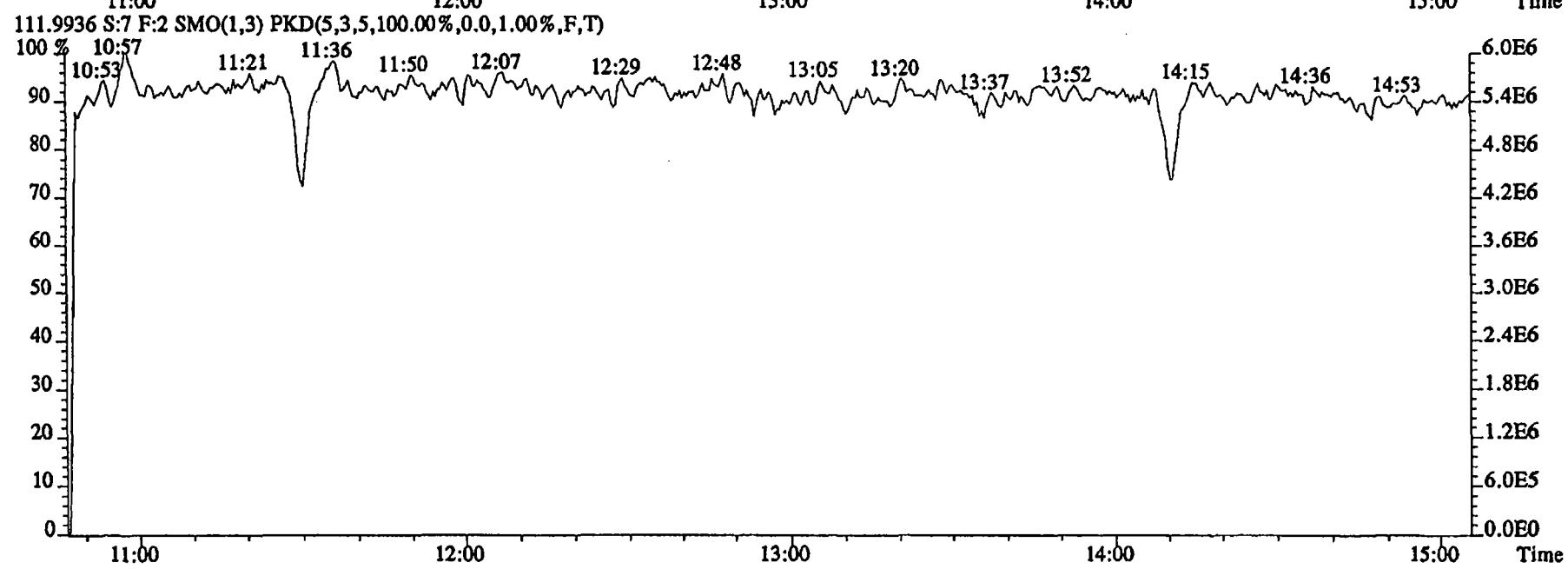
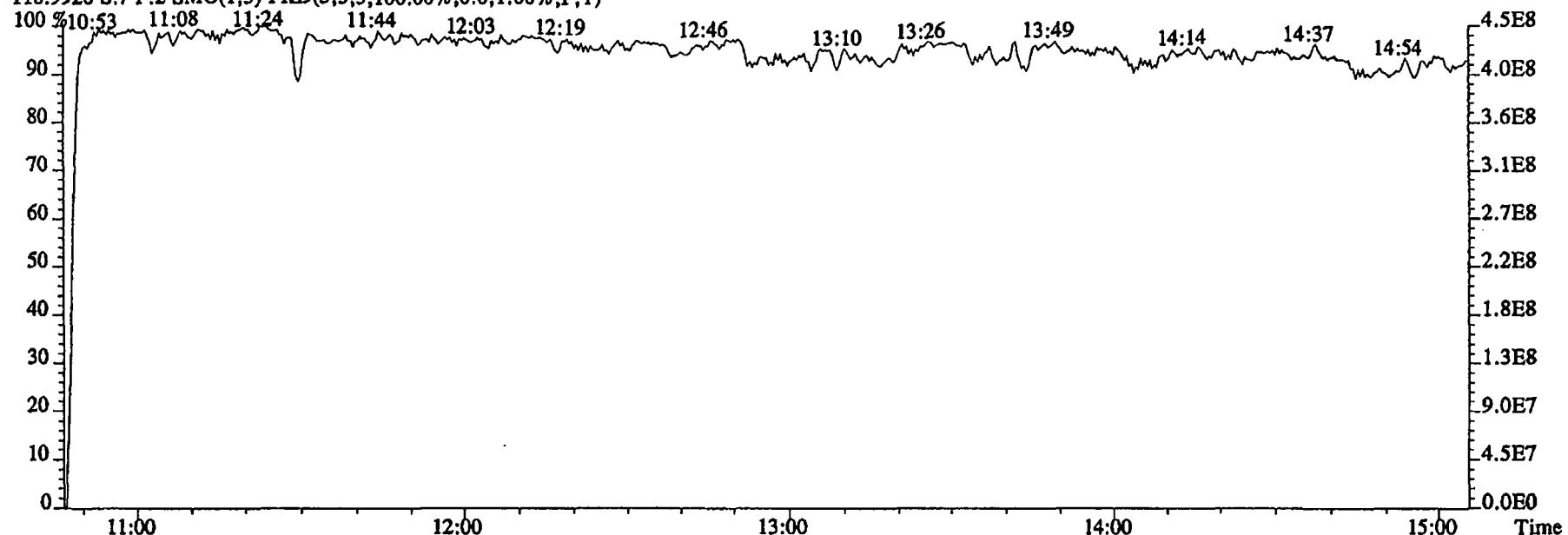
File:03DE04B5SP #1-480 Acq: 4-DEC-2004 00:03:00 GC EI+ Voltage SIR 70SE  
 Sample#7 Text:ST1203J :CS3 2350-68C Exp:NDMAVOA  
 68.9952 S:7 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



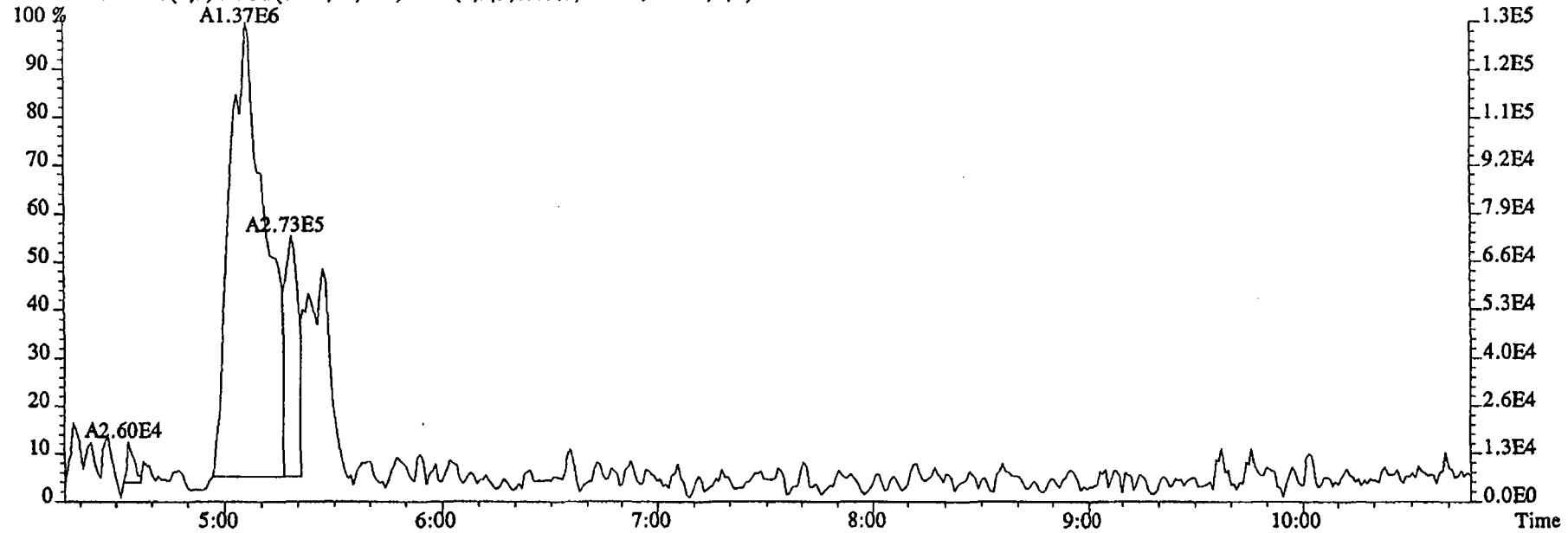
80.9952 S:7 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



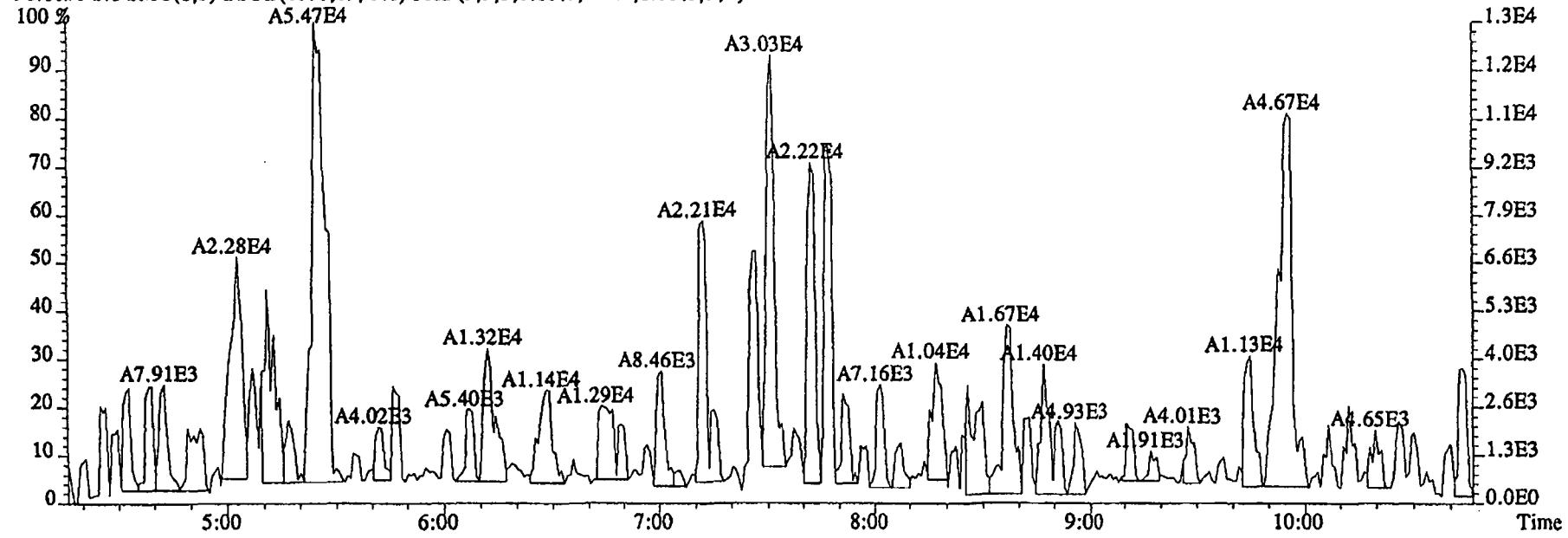
File:03DE04BSSP #1-603 Acq: 4-DEC-2004 00:03:00 GC EI+ Voltage SIR 70SE  
Sample#7 Text:ST1203J :CS3 2350-68C Exp:NDMAVOA  
118.9920 S:7 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



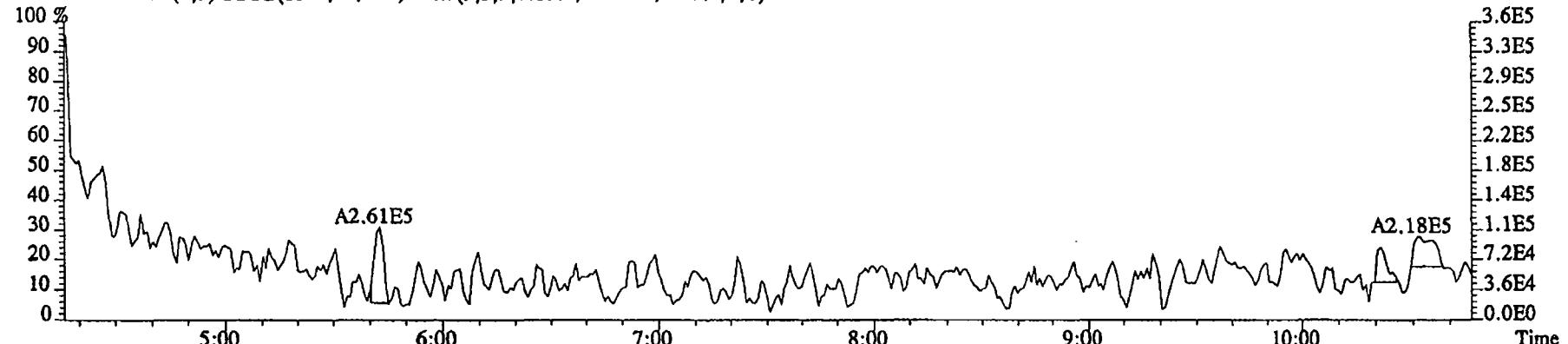
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 Sample#8 Text:SB1203A :Solvent Blank DCM Exp:NDMAVOA  
 88.0524 S:8 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7840.0,1.00%,F,T)



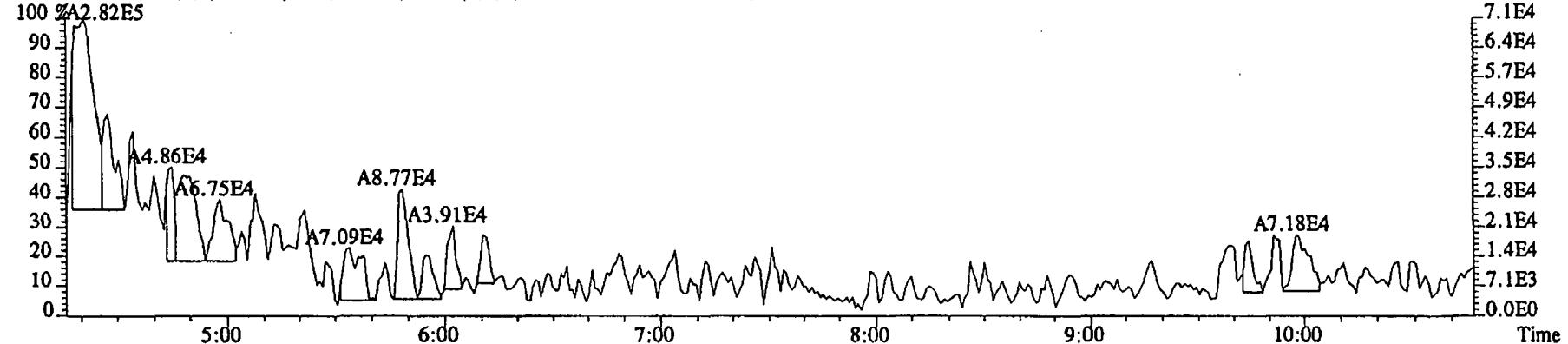
96.1026 S:8 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,964.0,1.00%,F,T)



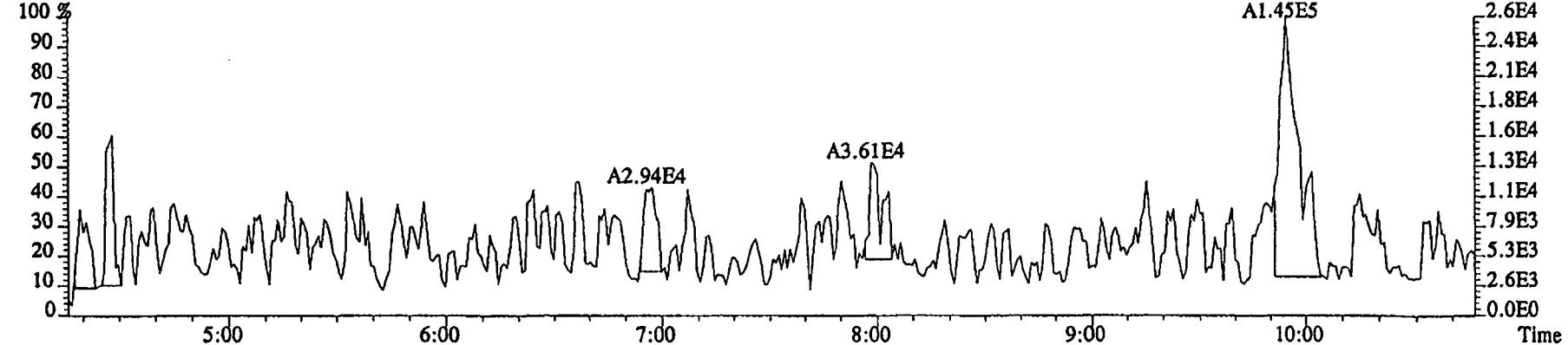
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 00:23:20 GC EI+ Voltage SIR 70SE  
 Sample#8 Text:SB1203A :Solvent Blank DCM Exp:NDMAVOA  
 75.0002 S:8 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,64276.0,1.00%,F,T)



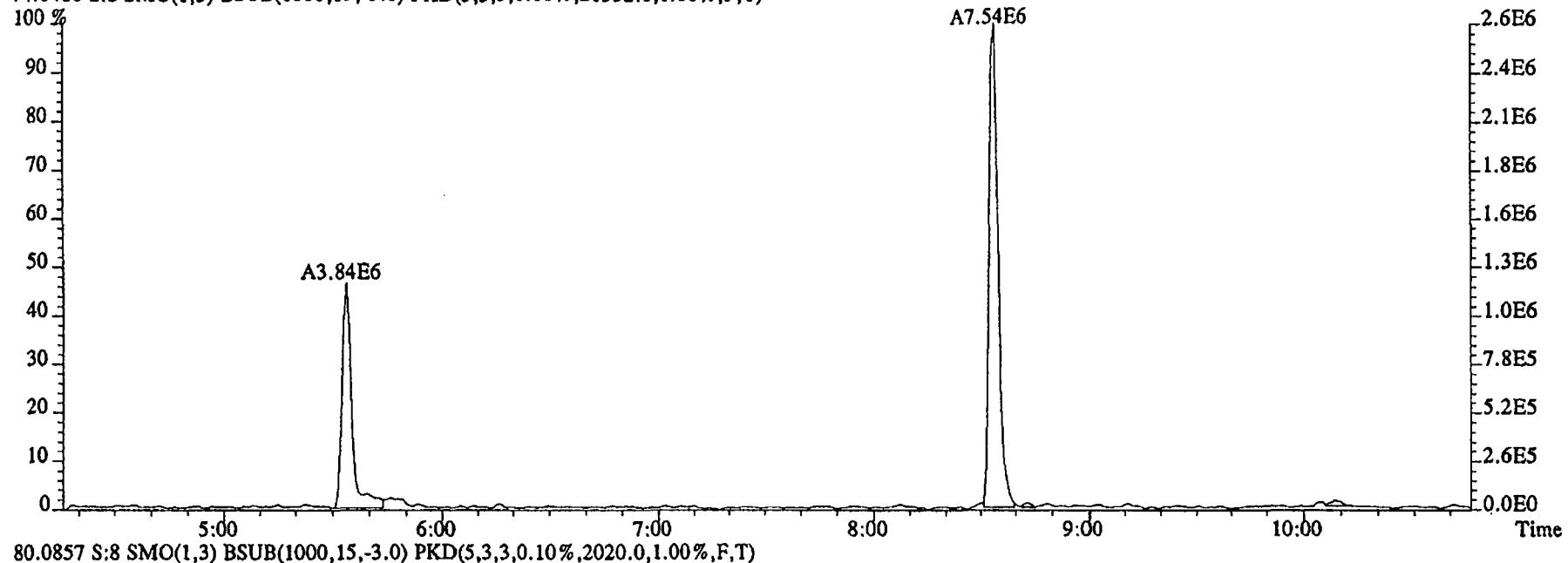
76.9972 S:8 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,9384.0,1.00%,F,T)



79.0253 S:8 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,7628.0,1.00%,F,T)



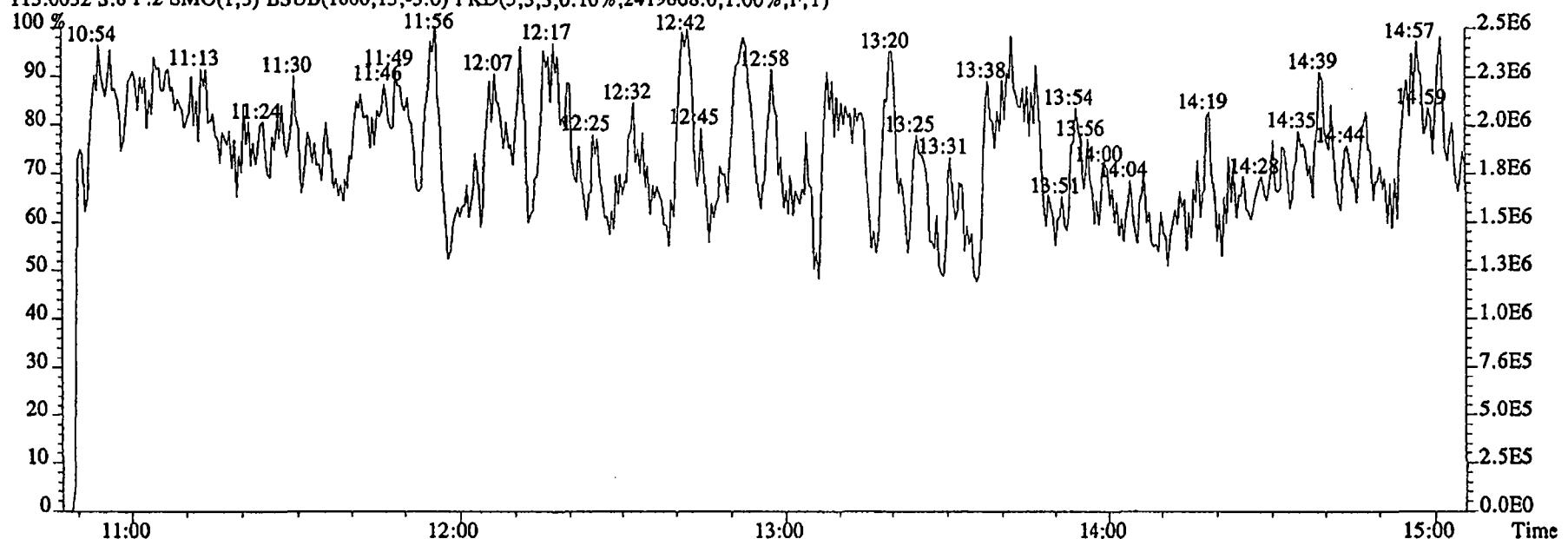
File:03DE04B5SP #1-481 Acq: 4-DEC-2004 00:23:20 GC EI+ Voltage SIR 70SE  
 Sample#8 Text:SB1203A :Solvent Blank DCM Exp:NDMAVOA  
 74.0480 S:8 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,21332.0,1.00%,F,T)



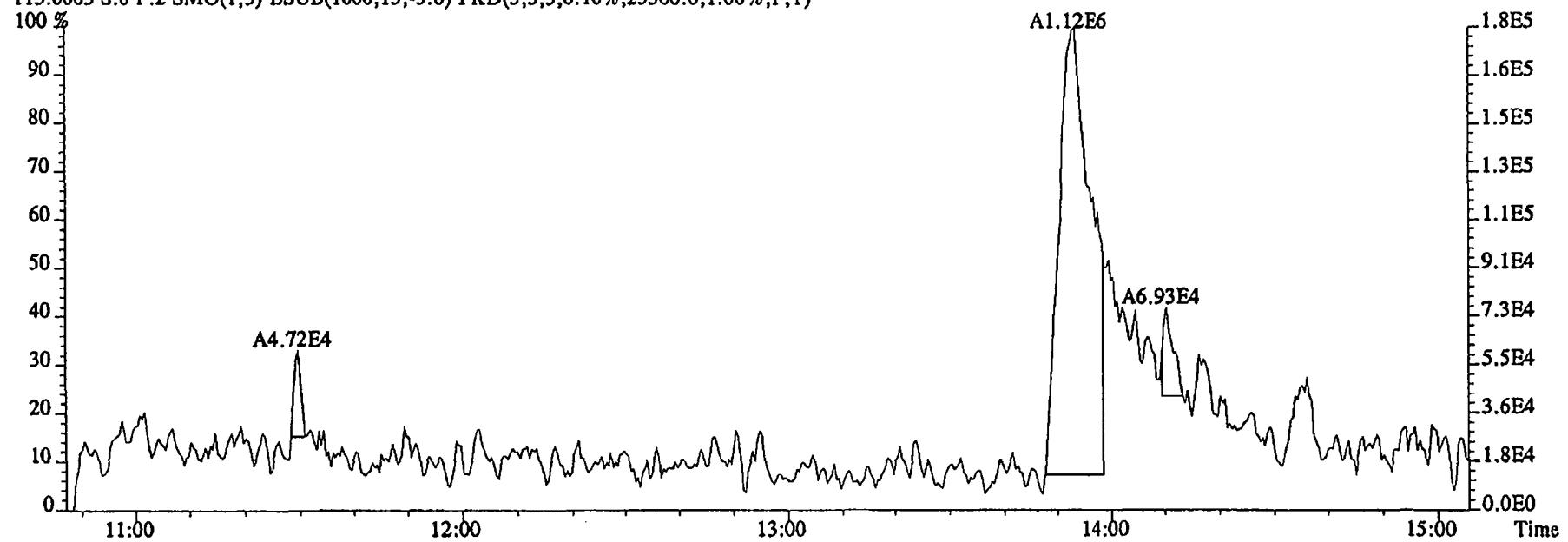
File:03DE04B5SP #1-602 Acq: 4-DEC-2004 00:23:20 GC EI + Voltage SIR 70SE

Sample#8 Text:SB1203A :Solvent Blank DCM Exp:NDMAVOA

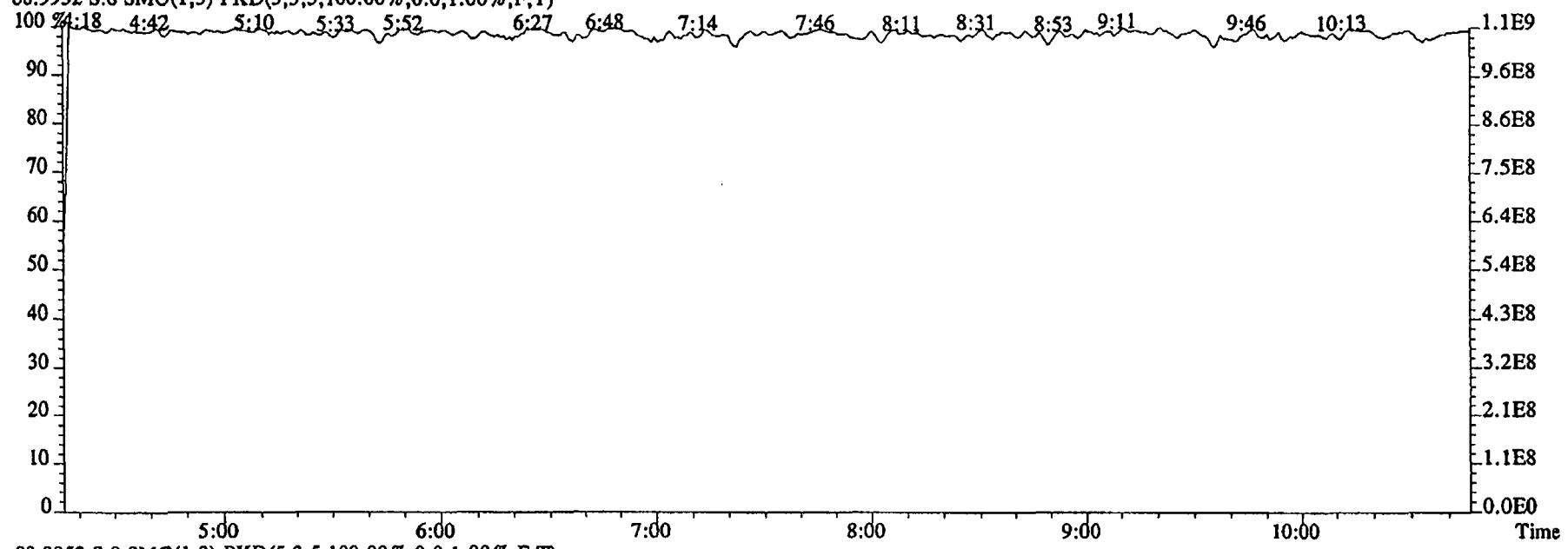
113.0032 S:8 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2419668.0,1.00%,F,T)



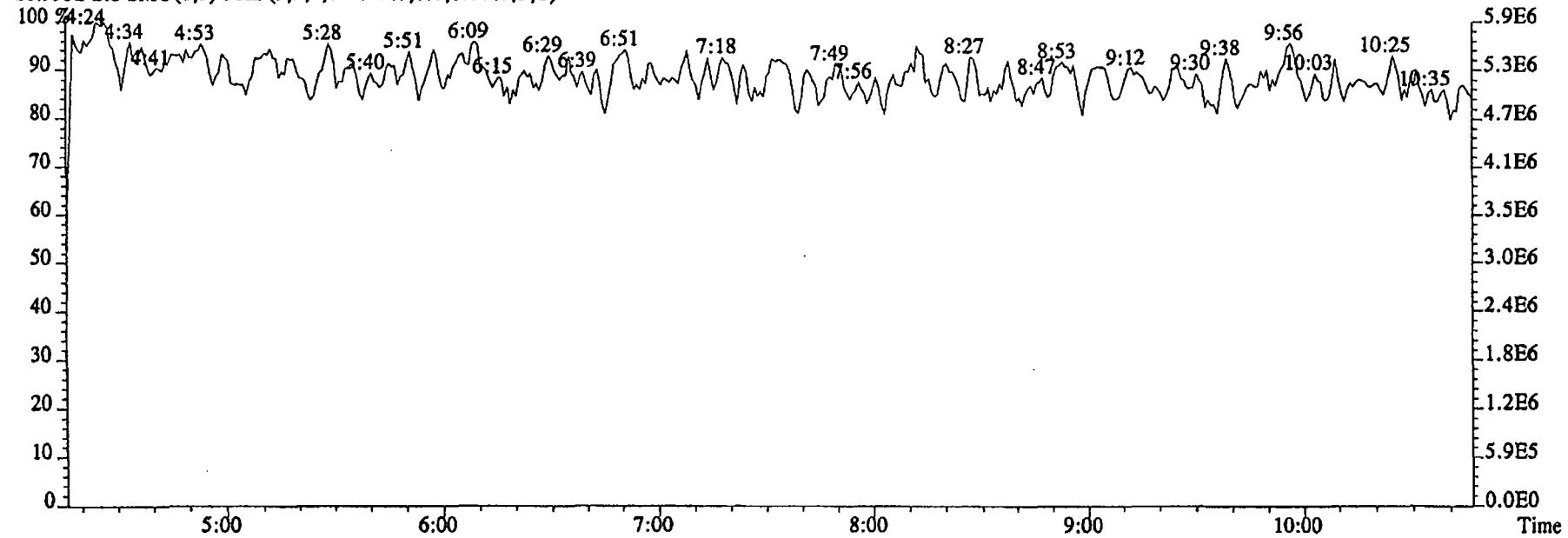
115.0003 S:8 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,25560.0,1.00%,F,T)



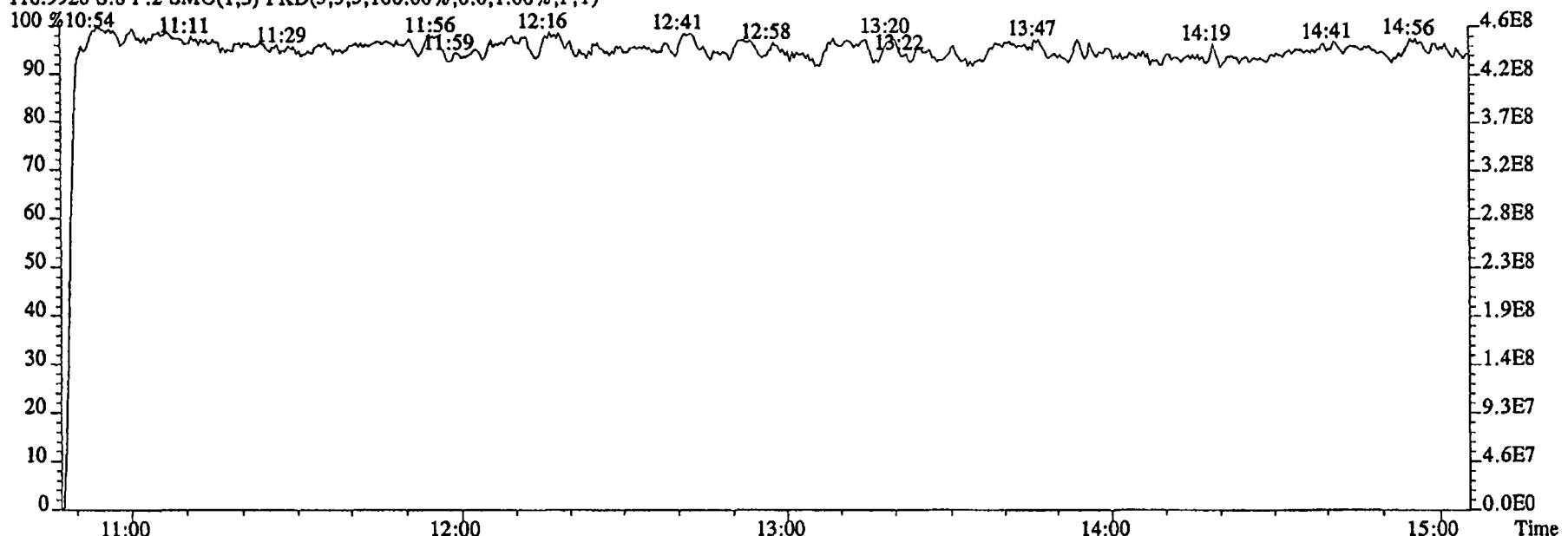
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 Sample#8 Text:SB1203A ;Solvent Blank DCM Exp:NDMAVOA  
 68.9952 S:8 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



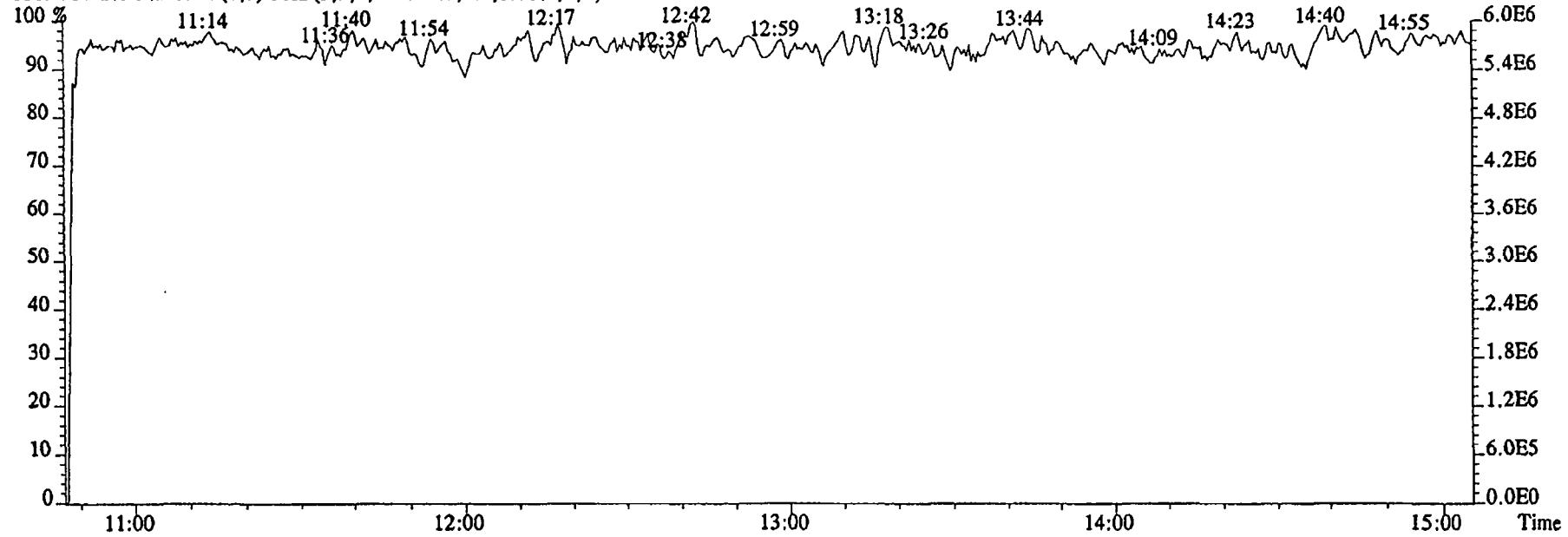
80.9952 S:8 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-602 Acq: 4-DEC-2004 00:23:20 GC EI + Voltage SIR 70SE  
Sample#8 Text:SB1203A Solvent Blank DCM Exp:NDMAVOA  
118.9920 S:8 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:8 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



## **Initial Calibration**

***Includes (as applicable):***

***runlog***

***standard raw data***

***statistical summary***

***ms tune data***

Initial Calibration Checklist  
High Resolution

ICAL ID 16251203045SP

Method ID 1625

Column ID SP-2331

Instrument ID 53P

STD ID's ST1203(E, F, G, H, I)

STD Solution 2350-68(A-e)

Analyzed By AM

Multiplier Setting 270

Prepared By AS

Date Analyzed 12/03/01

Reviewed By C. Mitchell

Date Prepared 12/14/01

Date Reviewed 12-14-01

ANALYSIS OF ICAL		INITIATED	REVIEWED
Curve summary present?	✓		✓
Hardcopies of chromatograms for CS1-CS5 present?	✓		✓
Copy of log-file present?	✓		✓
Static resolution check present?	✓		✓
Target file RT's correct?	✓		✓
%RSD within method-specified limits?	✓		✓
Signal-to-noise criteria met?	✓		✓
Isotopic ratios within limits?	NA		NA
High point free of saturation?	✓		✓
Are chromatographic windows correct?	✓		✓
Manual reintegration's checked and hardcopies included?	✓		✓

COMMENTS:

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Method 8290: %RSD  $\leq$  20% for natives,  $\leq$  30% for labeled analytes; S/N  $\geq$  10

Method 1613A: %CV  $\leq$  35% (See Table 7, Method 1613A); S/N  $\geq$  10

Method 23: %RSD  $\leq$  values specified in Table 5, Method 23; S/N  $>$  2.5

PAH: %RSD  $\leq$  30% for natives and labeled compounds; S/N  $\geq$  10

PCB: %RSD  $\leq$  20% for natives,  $\leq$  40% for labeled compounds; S/N  $\geq$  2.5

NCASI 551: %RSD  $\leq$  20% for natives and labeled compounds;  $\geq$  5

DBD/DBF: %RSD  $\leq$  30% for natives,  $\leq$  40% for labeled analytes; S/N  $\geq$  10

QA-384 DW 05/03

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Run: 03DE04B5SP1 Analyte: 1625

Cal: 16251203045SP

ST1203E :CS1 2350-68A  
ST1203H :CS4 2350-68DST1203F :CS2 2350-68B  
ST1203I :CS5 2350-68E

ST1203G :CS3 2350-68C

Name	Mean	S. D.	%RSD	03DE04B5SP03DE04B5SP03DE04B5SP03DE04B5SP03DE04B5SP				
				S1	S2	S3	S4	S5
				RRF1	RRF2	RRF3	RRF4	RRF5
2-Chloropyridine	-	-	- %	-	-	-	-	-
D8-1,4-Dioxane	0.987	0.060	6.10 %	1.08	1.01	0.97	0.93	0.95
1,4-Dioxane	1.593	0.108	6.81 %	1.78	1.57	1.51	1.54	1.55
D5-1,2,3-TriChloroPropane	4.023	0.096	2.38 %	4.16	3.94	3.99	3.94	4.08
1,2,3-TriChloroPropane	0.391	0.065	16.7 %	0.51	0.36	0.34	0.37	0.37
1,2,3-TriChloroPropane	-	-	- %	-	-	-	-	-
D6-NDMA	2.487	0.063	2.55 %	2.55	2.44	2.40	2.50	2.54
NDMA	1.102	0.063	5.72 %	1.19	1.02	1.07	1.11	1.13
2-Chloropyridine	-	-	- %	-	-	-	-	-

Run #1   Filename 03DE04B5SP   S: 1   I: 1  
Acquired: 3-DEC-04   22:01:00   Processed: 3-DEC-04   23:41:48  
Run: 03DE04B5SPI Analyte: 1625   Cal: 16251203045SP  
Comments:  
Sample text: ST1203E :CS1 2350-68A

Name	Resp	RA	RT	RRF		Mod?
2-Chloropyridine	46788000		10:57	-	200.00	n
D8-1,4-Dioxane	252841000		5:00	1.08	1000.00	n
1,4-Dioxane	901719		5:00	1.78	2.00	y
D5-123-TriChloroPropane	97396000		9:53	4.16	100.00	n
1,2,3-TriChloroPropane	986770		9:57	0.51	2.00	n
1,2,3-TriChloroPropane	2210320		9:57	-	2.00	n
D6-NDMA	59719000		10:03	2.55	100.00	n
NDMA	1416800		10:03	1.19	2.00	n
2-Chloropyridine	149531000		10:57	-	200.00	n

Run #2   Filename 03DE04B5SP S: 2    I: 1  
 Acquired: 3-DEC-04    22:21:16    Processed: 3-DEC-04    23:41:49  
 Run: 03DE04B5SP Analyte: 1625    Cal: 16251203045SP  
 Comments:

Sample text: ST1203F :CS2 2350-68B

Name	Resp	RA	RT	RRF		Mod?
2-Chloropyridine	47666300		10:58	-	200.00	n
D8-1,4-Dioxane	240633000		5:01	1.01	1000.00	n
1,4-Dioxane	3787140		5:01	1.57	10.00	y
D5-123-TriChloroPropane	94009000		9:53	3.94	100.00	n
1,2,3-TriChloroPropane	3398590		9:57	0.36	10.00	n
1,2,3-TriChloroPropane	10485300		9:57	-	10.00	n
D6-NDMA	58254500		10:04	2.44	100.00	n
NDMA	5929430		10:03	1.02	10.00	n
2-Chloropyridine	155015000		10:58	-	200.00	n

Run #3   Filename 03DE04B5SP   S: 3           I: 1  
 Acquired: 3-DEC-04   22:41:34           Processed: 3-DEC-04   23:41:49  
 Run: 03DE04B5SPI Analyte: 1625           Cal: 16251203045SP  
 Comments:

Sample text: ST1203G :CS3 2350-68C

Name	Resp	RA	RT	RRF		Mod?
2-Chloropyridine	86387800		10:57	-	200.00	n
D8-1,4-Dioxane	417278000		5:01	0.97	1000.00	n
1,4-Dioxane	31594700		5:01	1.51	50.00	n
D5-123-TriChloroPropane	172144000		9:54	3.99	100.00	n
1,2,3-TriChloroPropane	29650400		9:57	0.34	50.00	n
1,2,3-TriChloroPropane	94322500		9:57	-	50.00	n
D6-NDMA	103726000		10:03	2.40	100.00	n
NDMA	55459800		10:03	1.07	50.00	n
2-Chloropyridine	274504000		10:57	-	200.00	n

Run #4   Filename 03DE04B5SP   S: 4      I: 1  
 Acquired: 3-DEC-04   23:01:55      Processed: 3-DEC-04   23:41:49  
 Run: 03DE04B5SP Analyte: 1625      Cal: 16251203045SP  
 Comments:

Sample text: ST1203H :CS4 2350-68D

Name	Resp	RA	RT	RRF		Mod?
2-Chloropyridine	55931200		10:57	-	200.00	n
D8-1,4-Dioxane	259557000		5:01	0.93	1000.00	n
1,4-Dioxane	80174800		5:01	1.54	200.00	n
D5-123-TriChloroPropane	110278000		9:53	3.94	100.00	n
1,2,3-TriChloroPropane	81901200		9:57	0.37	200.00	n
1,2,3-TriChloroPropane	262872000		9:57	-	200.00	n
D6-NDMA	69993400		10:04	2.50	100.00	n
NDMA	155030000		10:03	1.11	200.00	n
2-Chloropyridine	180222000		10:57	-	200.00	n

Run #5   Filename 03DE04B5SP   S: 5   I: 1  
 Acquired: 3-DEC-04   23:22:17   Processed: 3-DEC-04   23:41:50  
 Run: 03DE04B5SP Analyte: 1625   Cal: 16251203045SP  
 Comments:

Sample text: ST1203I :CS5 2350-68E

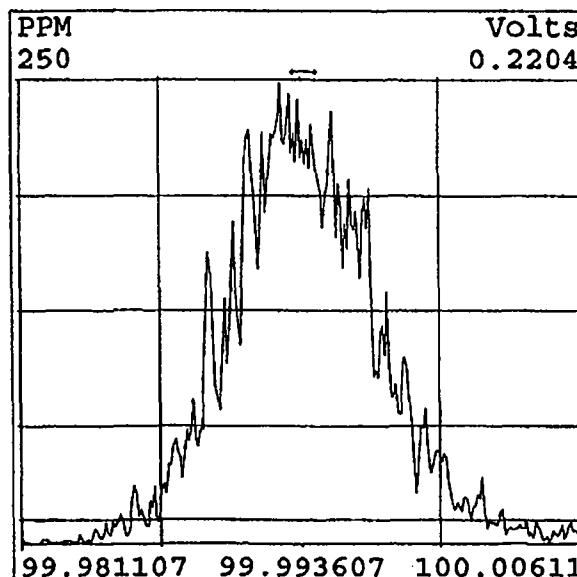
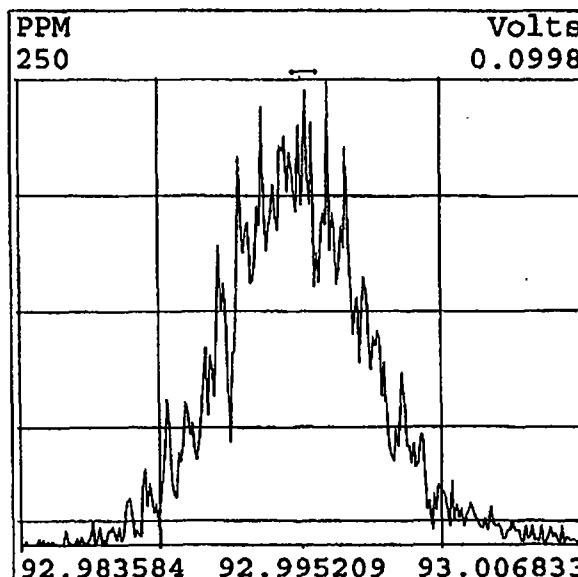
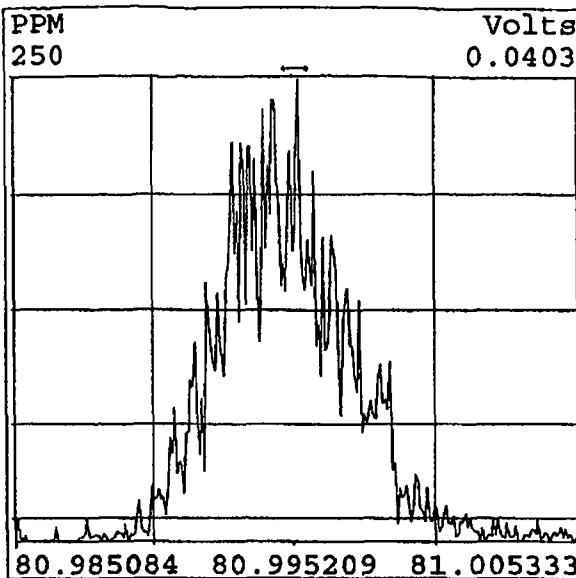
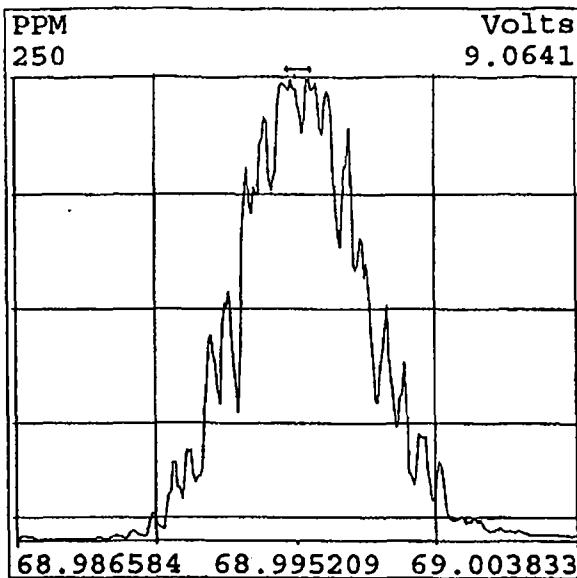
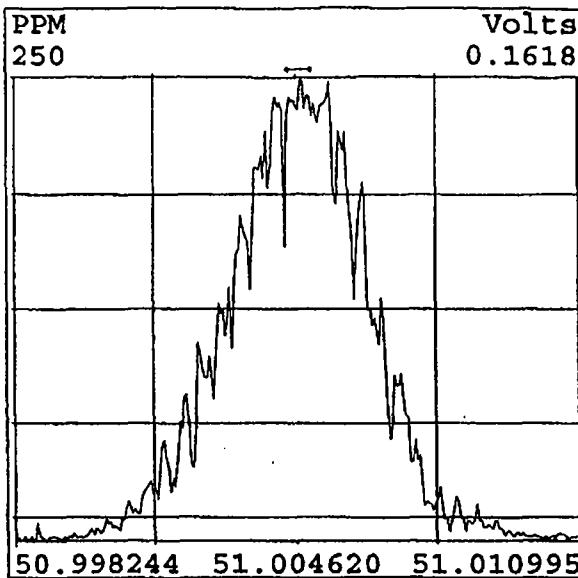
Name	Resp	RA	RT	RRF		Mod?
2-Chloropyridine	63750700		10:57	-	200.00	n
D8-1,4-Dioxane	303182000		5:00	0.95	1000.00	n
1,4-Dioxane	469667000		5:01	1.55	1000.00	n
D5-123-TriChloroPropane	129998000		9:53	4.08	100.00	n
1,2,3-TriChloroPropane	484148000		9:57	0.37	1000.00	n
1,2,3-TriChloroPropane	1524670000		9:57	-	1000.00	n
D6-NDMA	80833700		10:03	2.54	100.00	n
NDMA	910862000		10:03	1.13	1000.00	n
2-Chloropyridine	200984000		10:57	-	200.00	n

Data file	Smp	Work Order	Sample ID	FV-uL	Method/Matrix	Box	Size	U
03DE04B5SP 1		ST1203E	CS1 2350-68A				1.000	
03DE04B5SP 2		ST1203F	CS2 2350-68B				1.000	
03DE04B5SP 3		ST1203G	CS3 2350-68C				1.000	
03DE04B5SP 4		ST1203H	CS4 2350-68D				1.000	
03DE04B5SP 5		ST1203I	CS5 2350-68E				1.000	
03DE04B5SP 6		SB1203	Solvent Blank DCM				1.000	
03DE04B5SP 7		ST1203J	CS3 2350-68C				1.000	
03DE04B5SP 8		SB1203A	Solvent Blank DCM				1.000	
03DE04B5SP 9		GX8C2-1-AAB	G4L010311-1MB	500	1625/WATER	VS51	1.000	L
03DE04B5SP 10		GX8C2-1-ACC	G4L010311-1LCS	500	1625/WATER		1.000	L
03DE04B5SP 11		GX3LR-1-AA	G4L010311-1	500	1625/WATER		0.940	L
03DE04B5SP 12		GX3LW-1-AC	G4L010311-2	500	1625/WATER		0.979	L
03DE04B5SP 13		GX3LW-1-AFS	G4L010311-2MS	500	1625/WATER		0.990	L
03DE04B5SP 14		GX3LW-1-AGD	G4L010311-2SD	500	1625/WATER		0.917	L
03DE04B5SP 15		GX3L0-1-AC	G4L010311-3	500	1625/WATER		0.985	L
03DE04B5SP 16		GX3L1-1-AC	G4L010311-4	500	1625/WATER		0.933	L
03DE04B5SP 17		GX5HC-1-AA	G4L020252-1	500	1625/WATER		0.962	L
03DE04B5SP 18		GX6EX-1-AC	G4L020335-1	500	1625/WATER		0.988	L
03DE04B5SP 19		GX6FF-1-AC	G4L020335-2	500	1625/WATER		0.980	L
03DE04B5SP 20		GX6FQ-1-AA	G4L020335-3	500	1625/WATER		0.987	L
03DE04B5SP 21		GX6F1-1-AC	G4L020335-4	500	1625/WATER		0.971	L
03DE04B5SP 22		SB1203B	Solvent Blank DCM				1.000	
03DE04B5SP 23		MDLNNDMAS-MB	MDL-NDMA-SOIL-MB	500	1625/SOLID	VS51	10.000	g
03DE04B5SP 24		MDLNNDMAS-L1	MDL-NDMA-SOIL-LCS1	500	1625/SOLID		10.000	g
03DE04B5SP 25		MDLNNDMAS-L2	MDL-NDMA-SOIL-LCS2	500	1625/SOLID		10.000	g
03DE04B5SP 26		MDLNNDMAS-L3	MDL-NDMA-SOIL-LCS3	500	1625/SOLID		10.000	g
03DE04B5SP 27		MDLNNDMAS-L4	MDL-NDMA-SOIL-LCS4	500	1625/SOLID		10.000	g
03DE04B5SP 28		MDLNNDMAS-L5	MDL-NDMA-SOIL-LCS5	500	1625/SOLID		10.000	g
03DE04B5SP 29		MDLNNDMAS-L6	MDL-NDMA-SOIL-LCS6	500	1625/SOLID		10.000	g
03DE04B5SP 30		MDLNNDMAS-L7	MDL-NDMA-SOIL-LCS7	500	1625/SOLID		10.000	g
03DE04B5SP 31		ST1203K	CS3 2350-68C				1.000	
03DE04B5SP 32							1.000	
03DE04B5SP 33							1.000	
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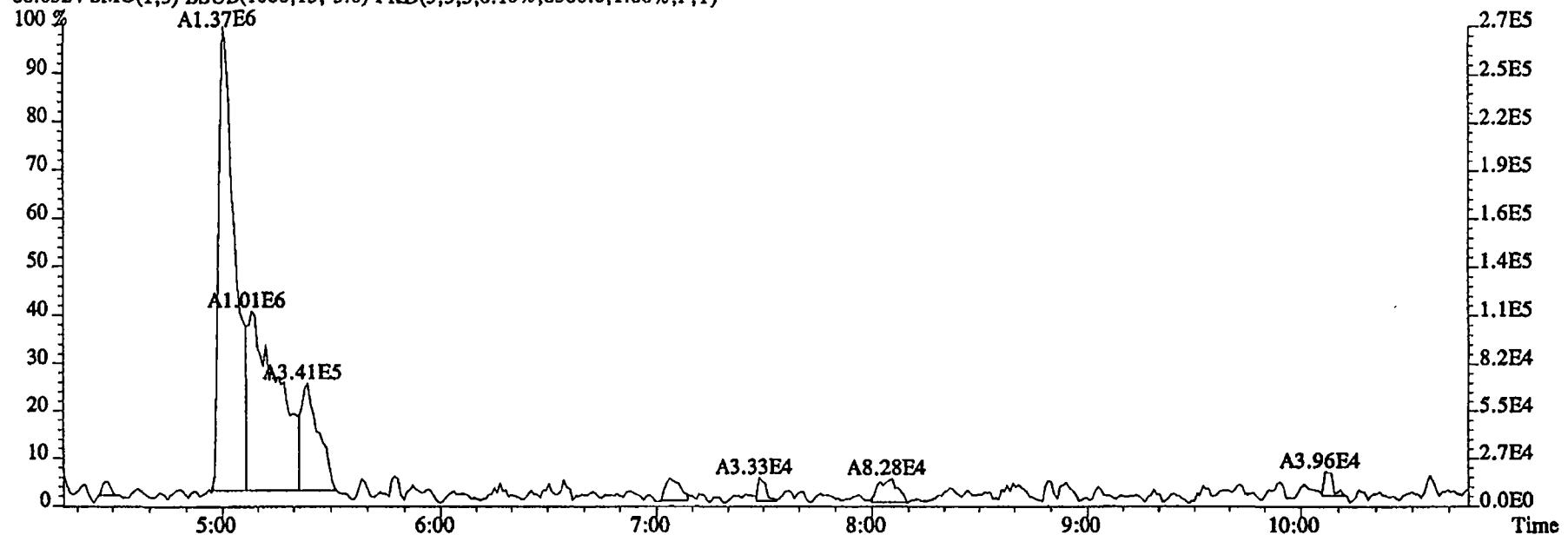
AM 12-03-04

log file checked  
12-04-04 am

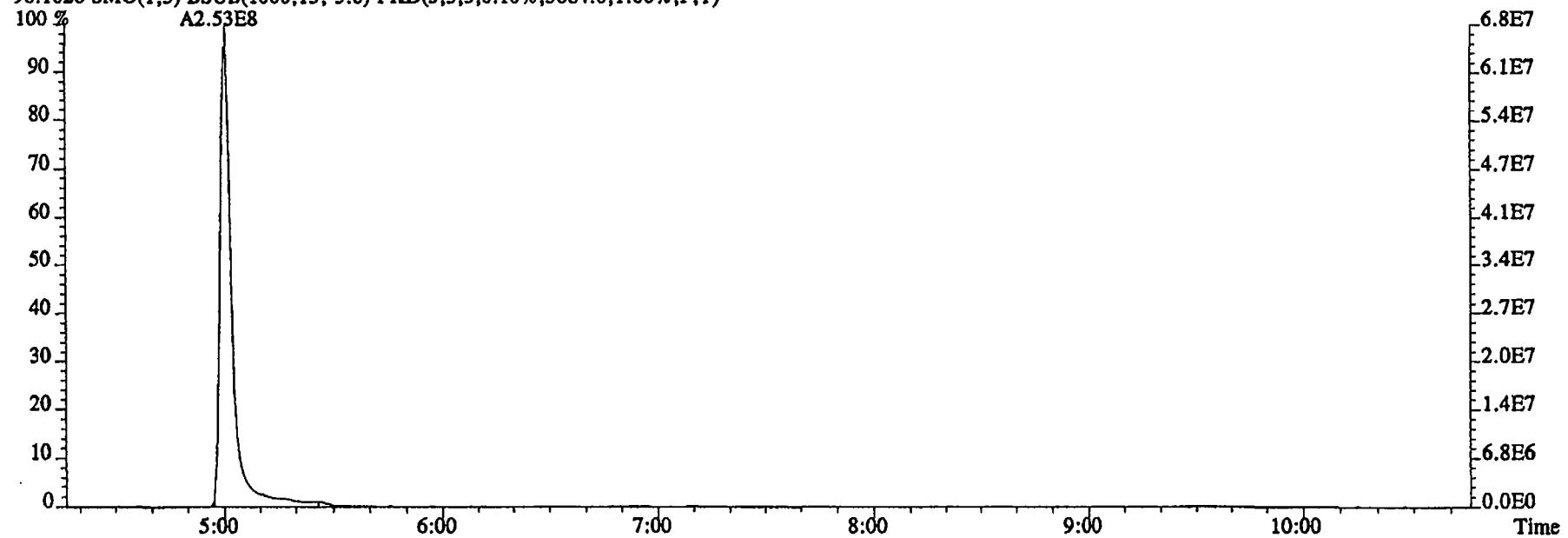
Peak Locate Examination: 3-DEC-2004:21:57 File:03DE04B5SP  
Experiment:NDMAVOA Function:1 Reference:PFK



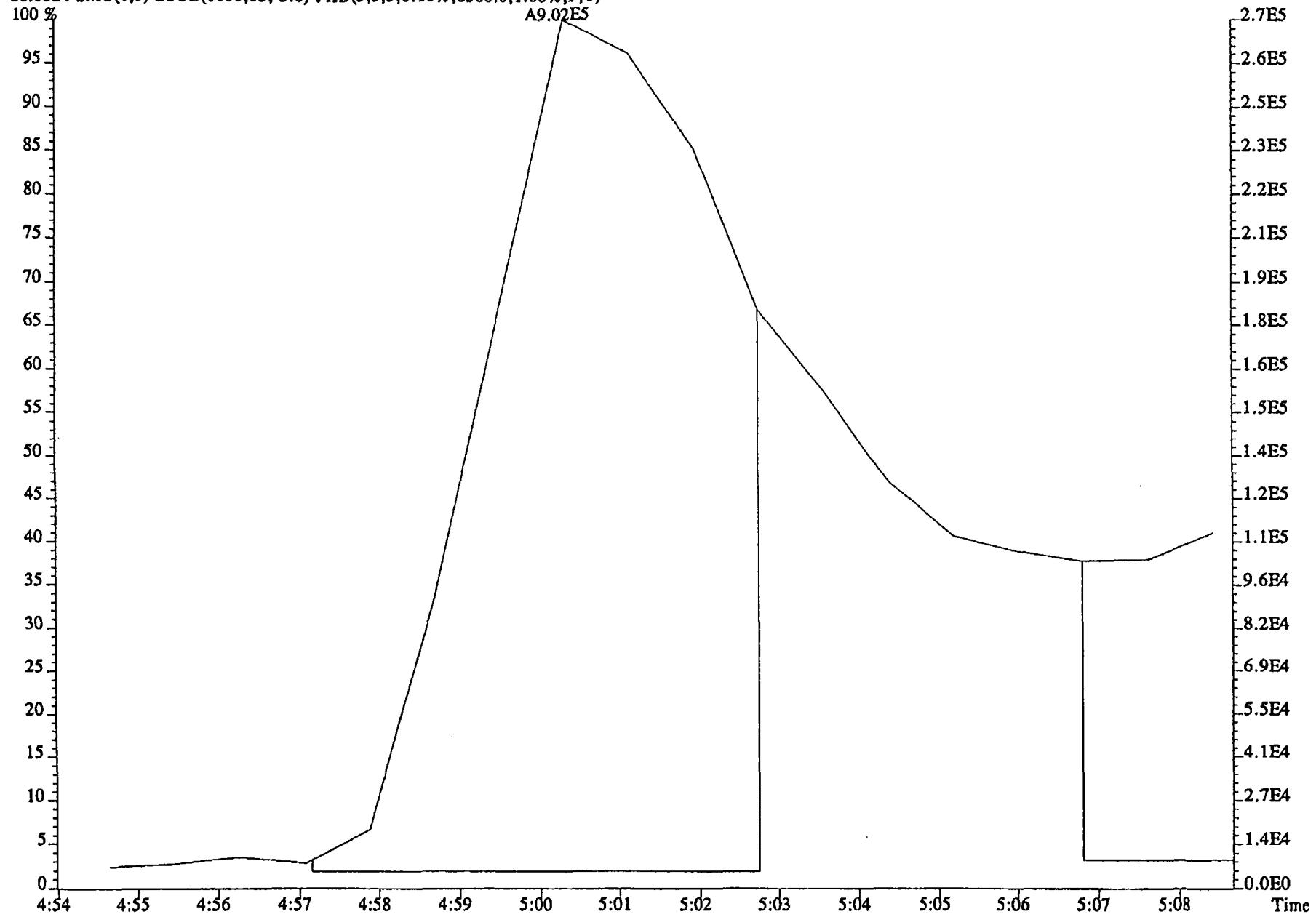
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 22:01:00 GC El + Voltage SIR 70SE  
 Sample#1 Text:ST1203E :CS1 2350-68A Exp:NDMAVOA  
 88.0524 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8300.0,1.00%,F,T)



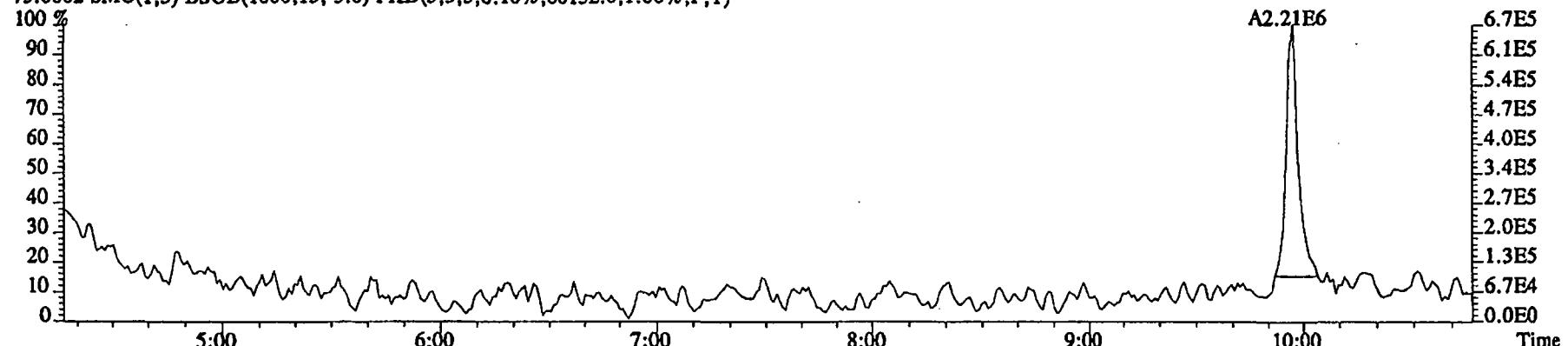
96.1026 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5684.0,1.00%,F,T)



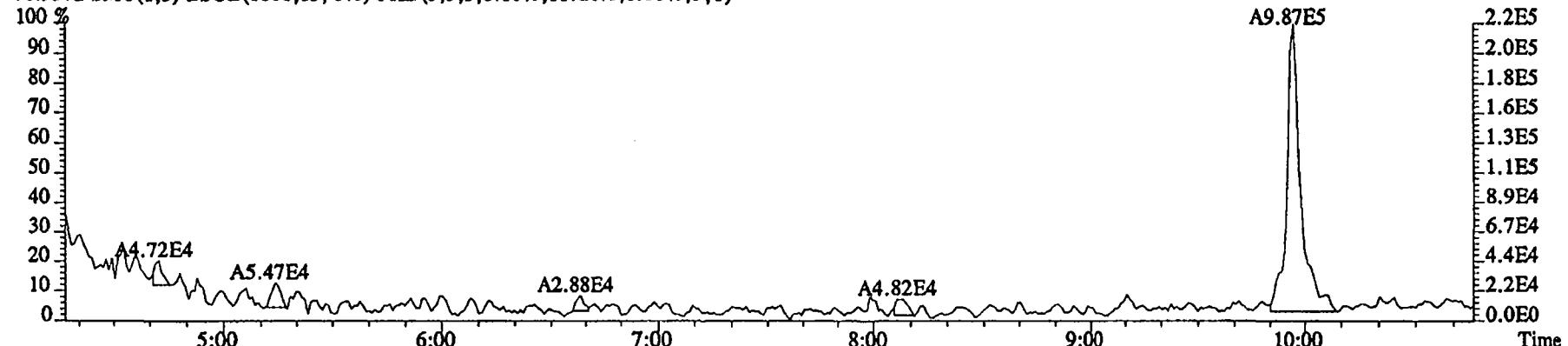
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 22:01:00 GC EI+ Voltage SIR 70SE  
Sample#1 Text:ST1203E CS1 2530-68A Exp:NDMAVOA  
88.0524 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8300.0,1.00%,F,T)



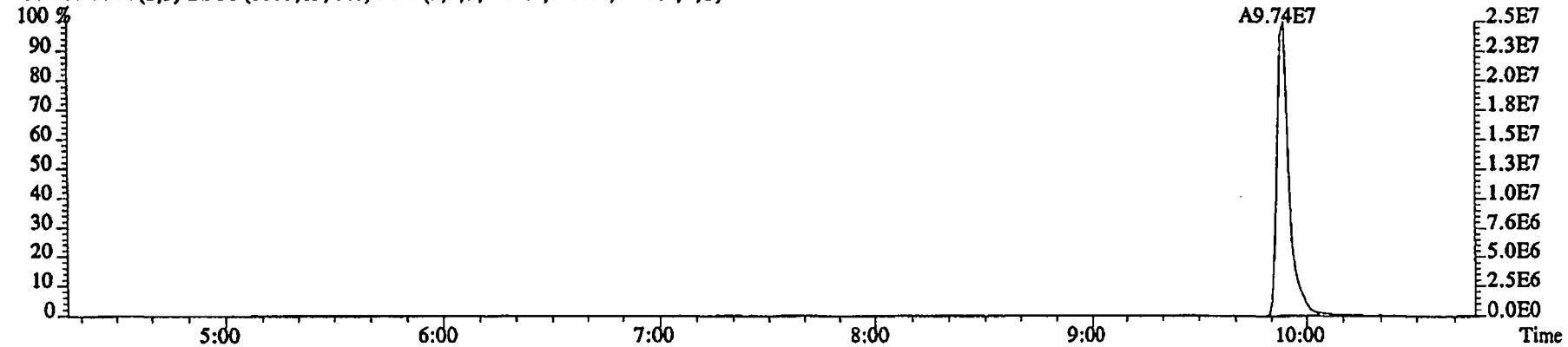
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 Sample#1 Text:ST1203E :CS1 2350-68A Exp:NDMAVOA  
 75.0002 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,80152.0,1.00%,F,T)



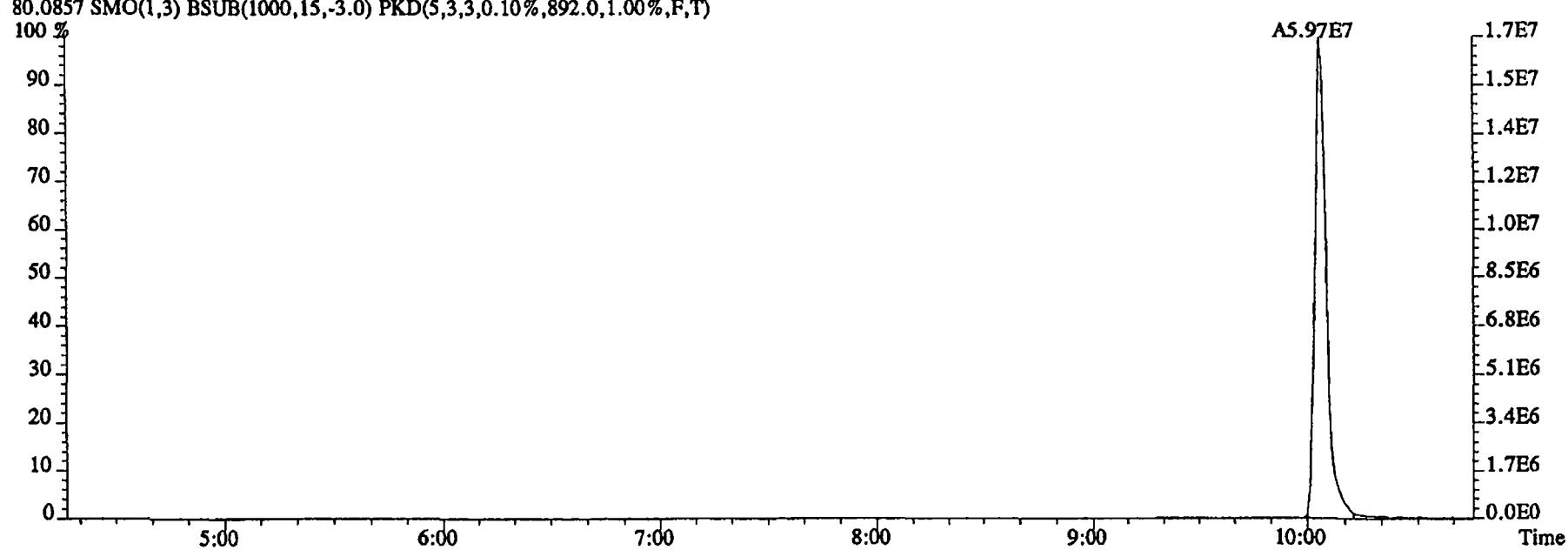
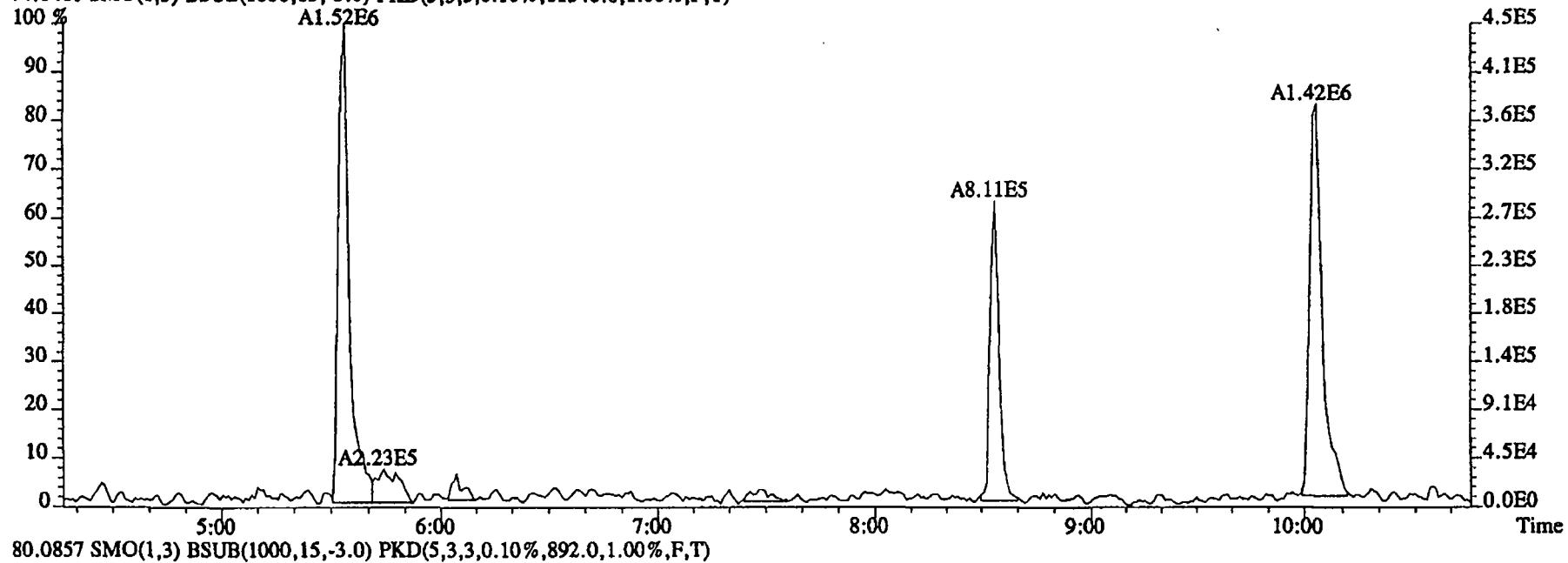
76.9972 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11728.0,1.00%,F,T)



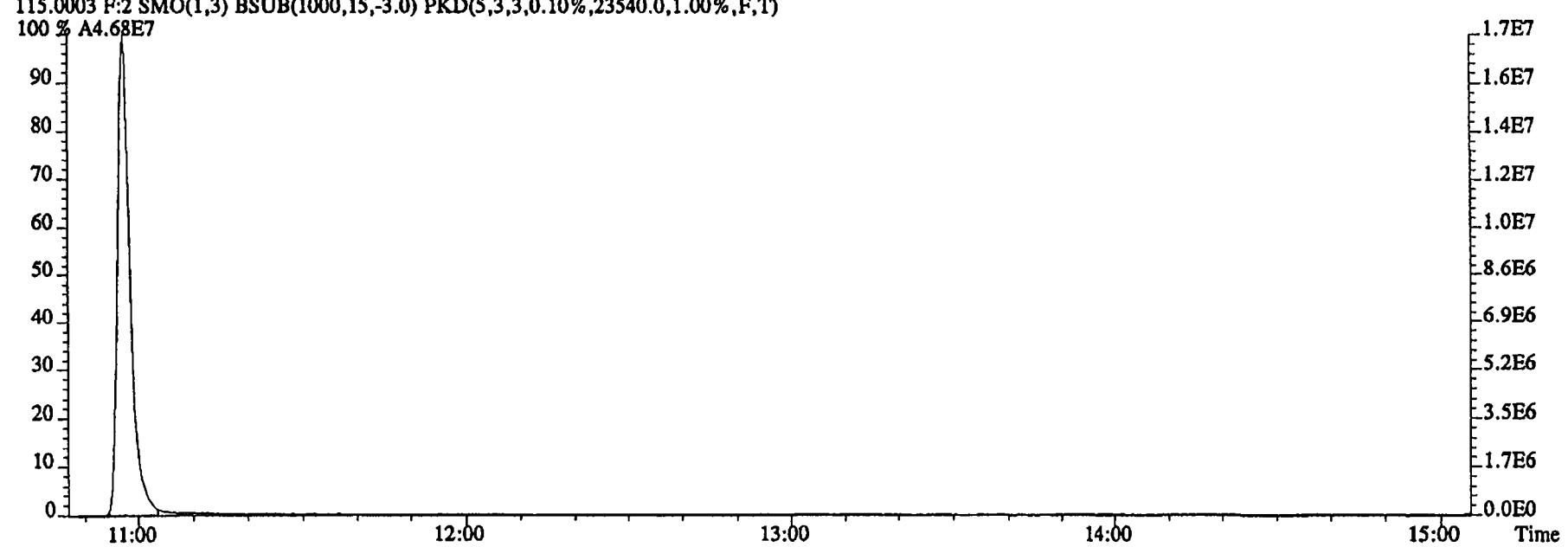
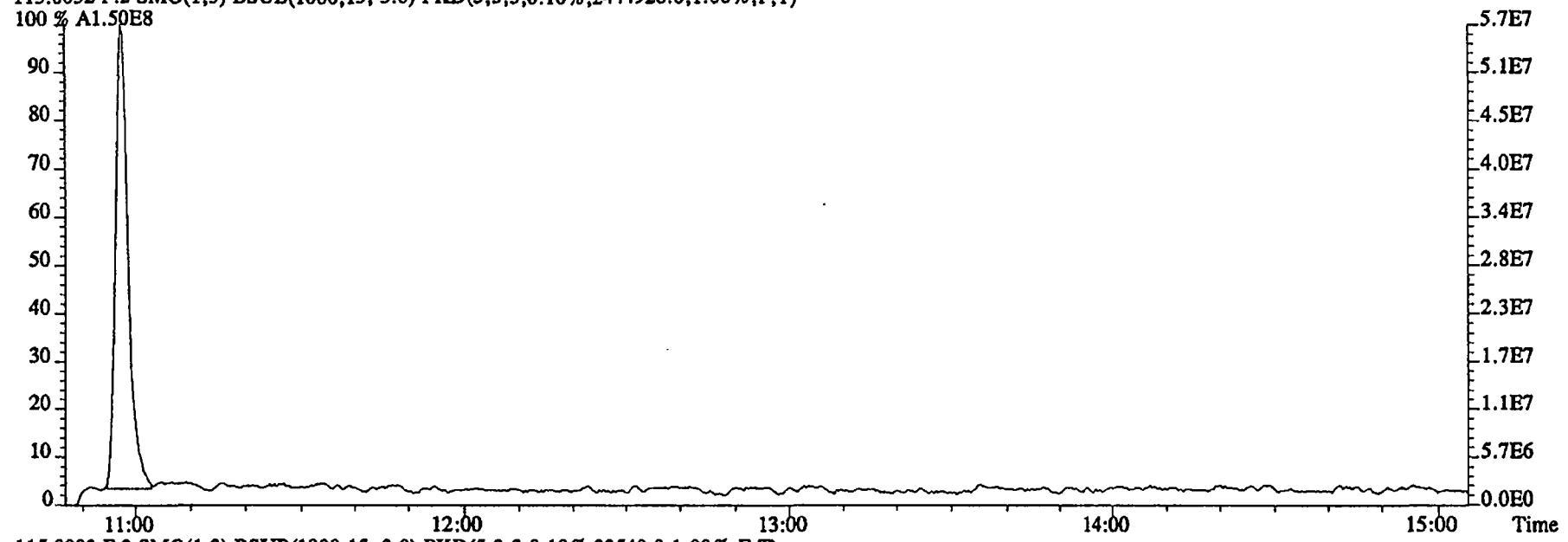
79.0253 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6680.0,1.00%,F,T)



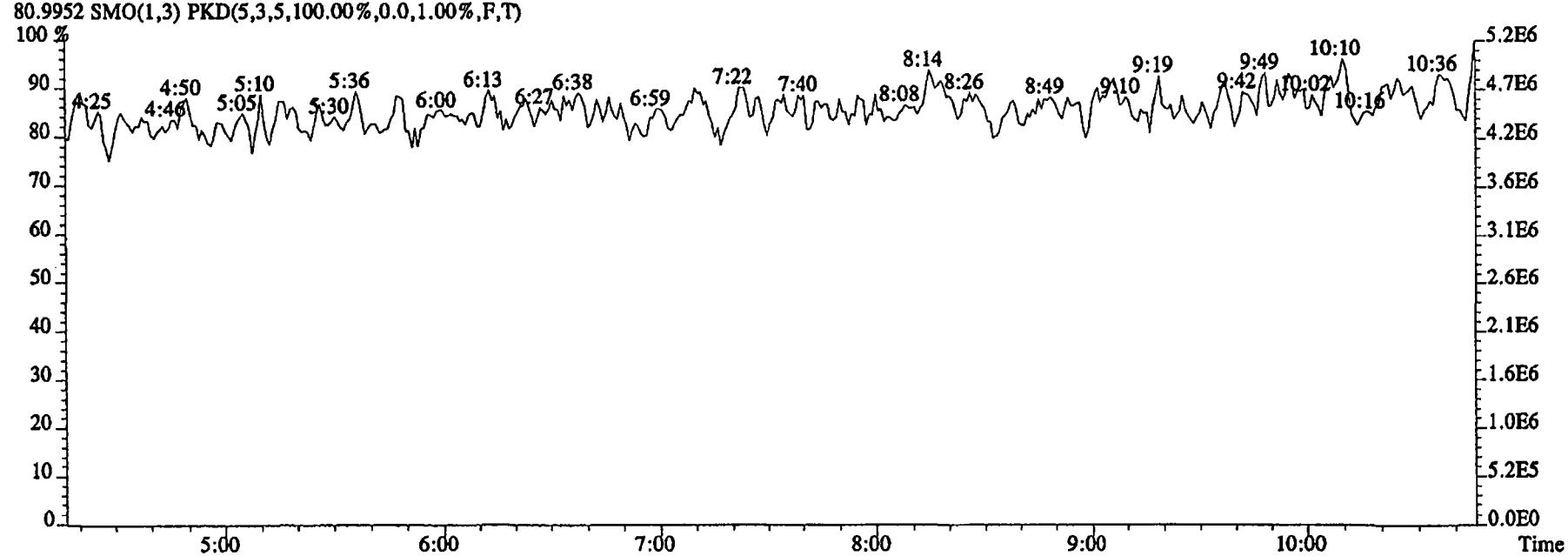
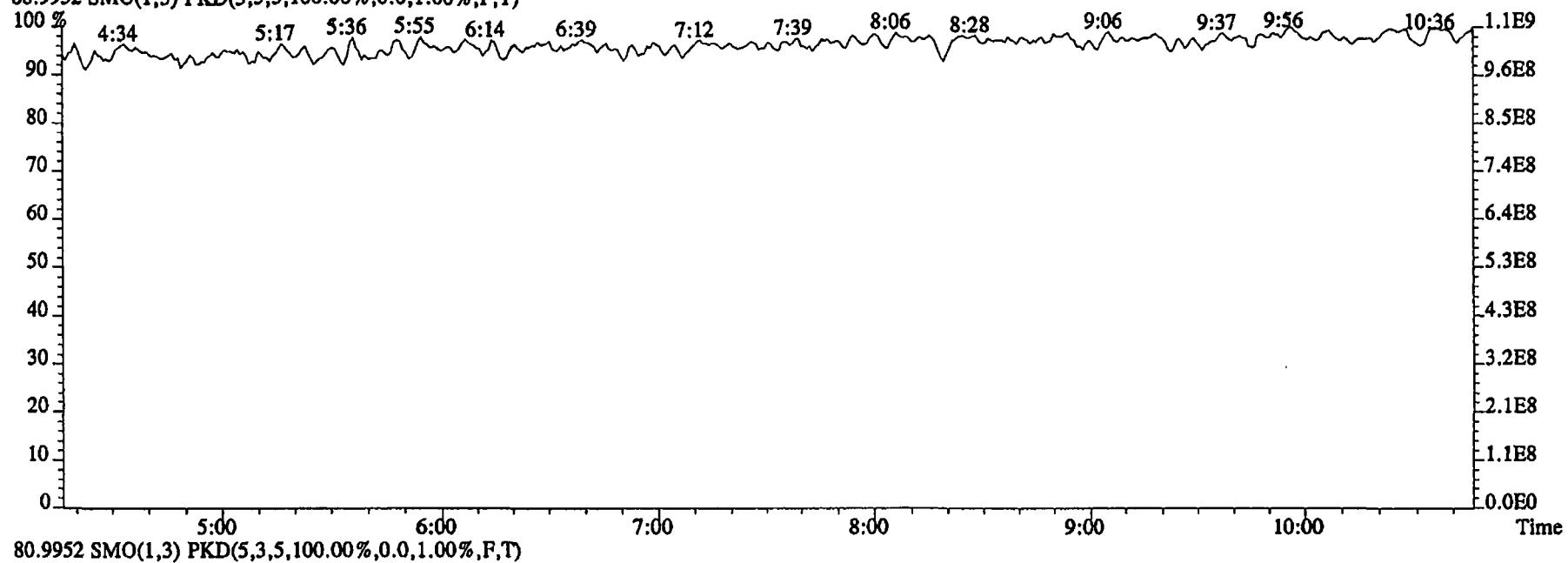
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 22:01:00 GC EI+ Voltage SIR 70SE  
Sample#1 Text:ST1203E :CS1 2350-68A Exp:NDMAVOA  
74.0480 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,11340.0,1.00%,F,T)



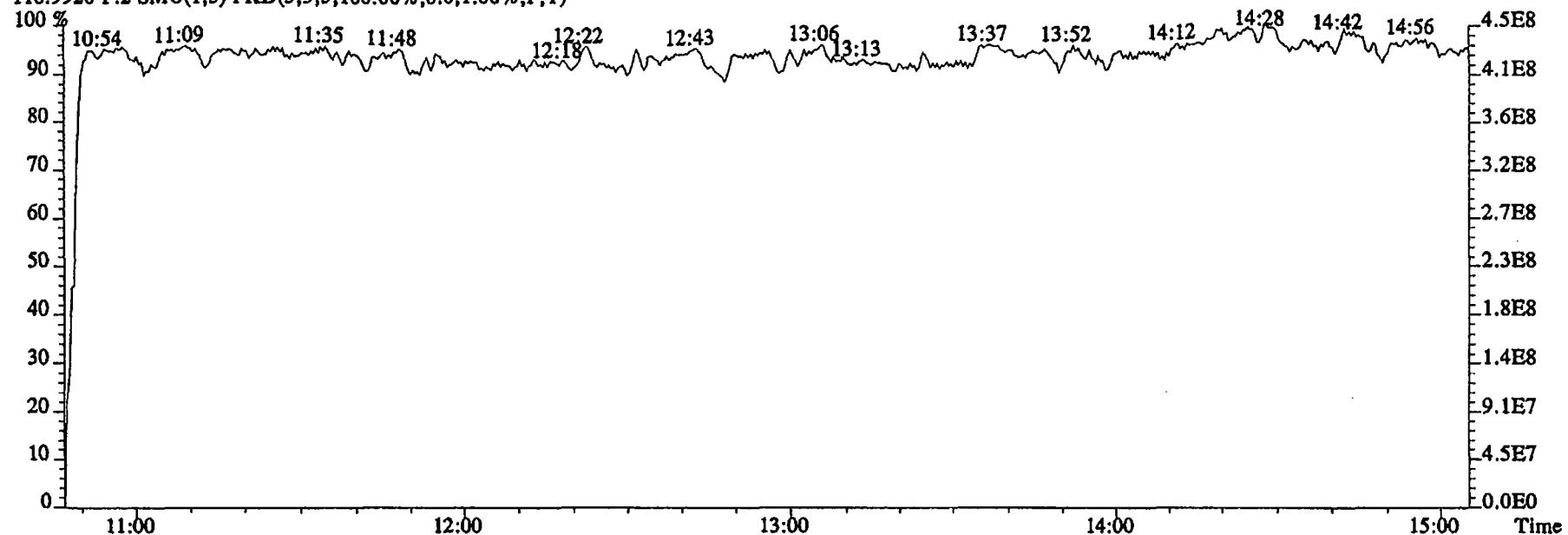
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Sample#1 Text:ST1203E :CS1 2350-68A Exp:NDMAVOA  
113.0032 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2444928.0,1.00%,F,T)



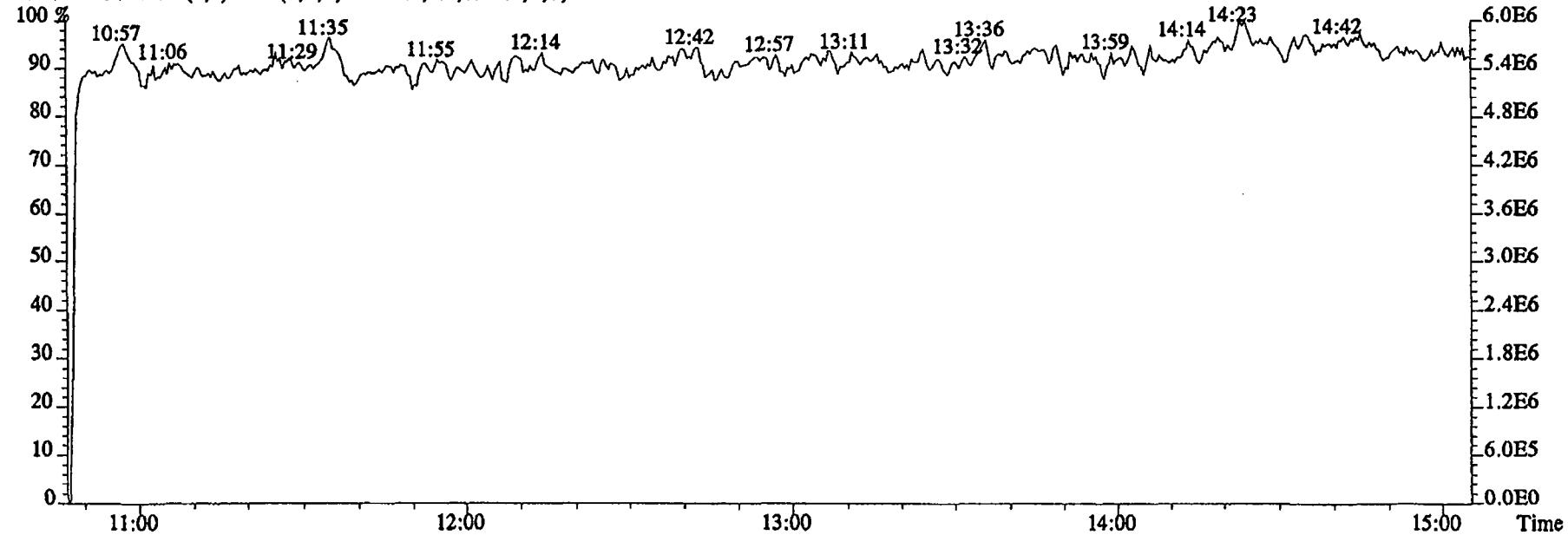
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Sample#1 Text:ST1203E CS1 2350-68A Exp:NDMAVOA  
68.9952 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



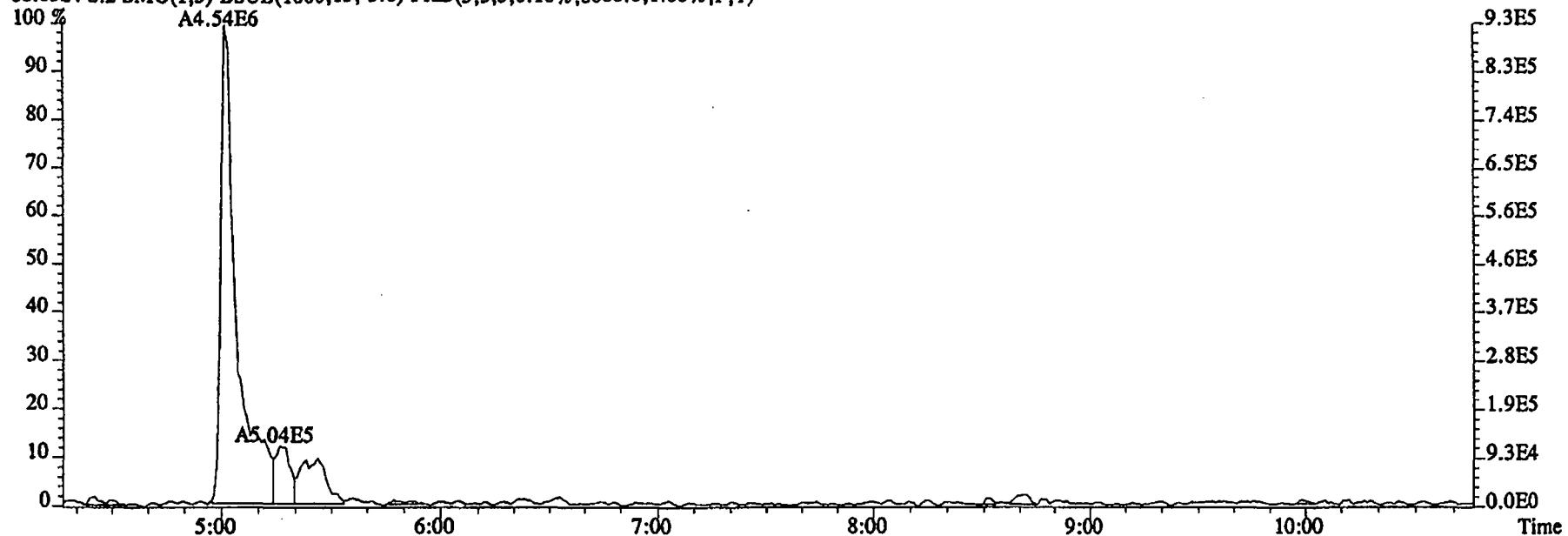
File:03DE04B5SP #1-602 Acq: 3-DEC-2004 22:01:00 GC EI + Voltage SIR 70SE  
Sample#1 Text:ST1203E :CS1 2350-68A Exp:NDMAVOA  
118.9920 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



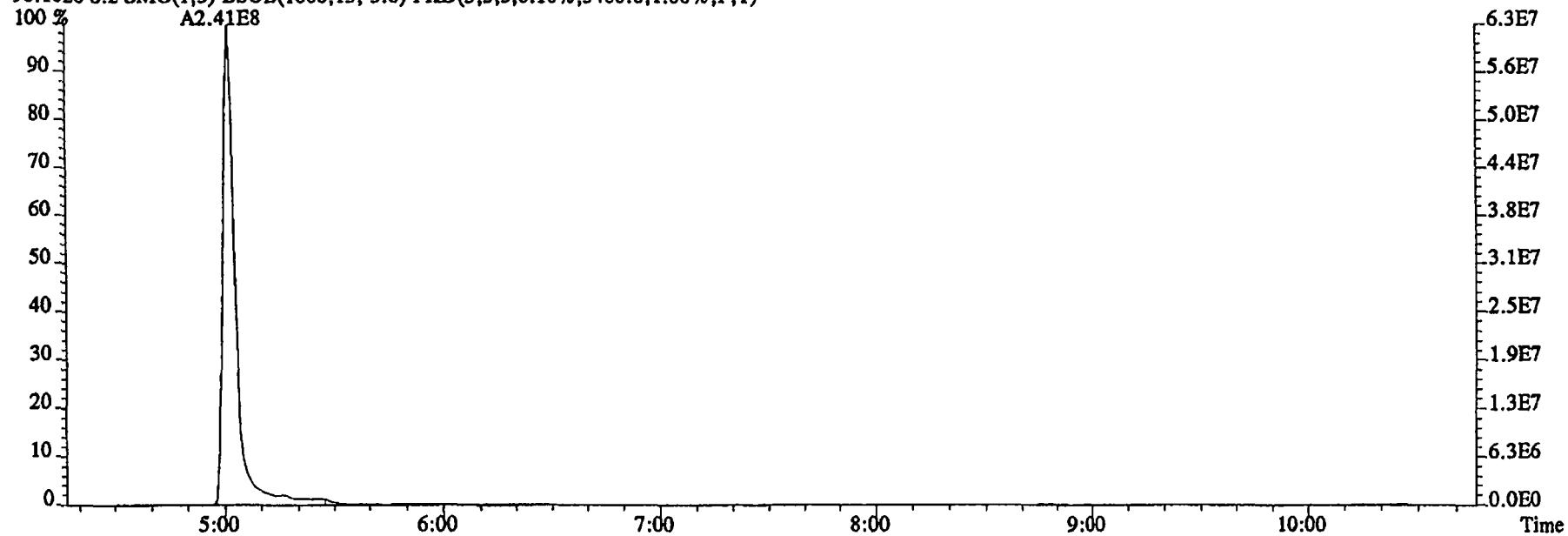
111.9936 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



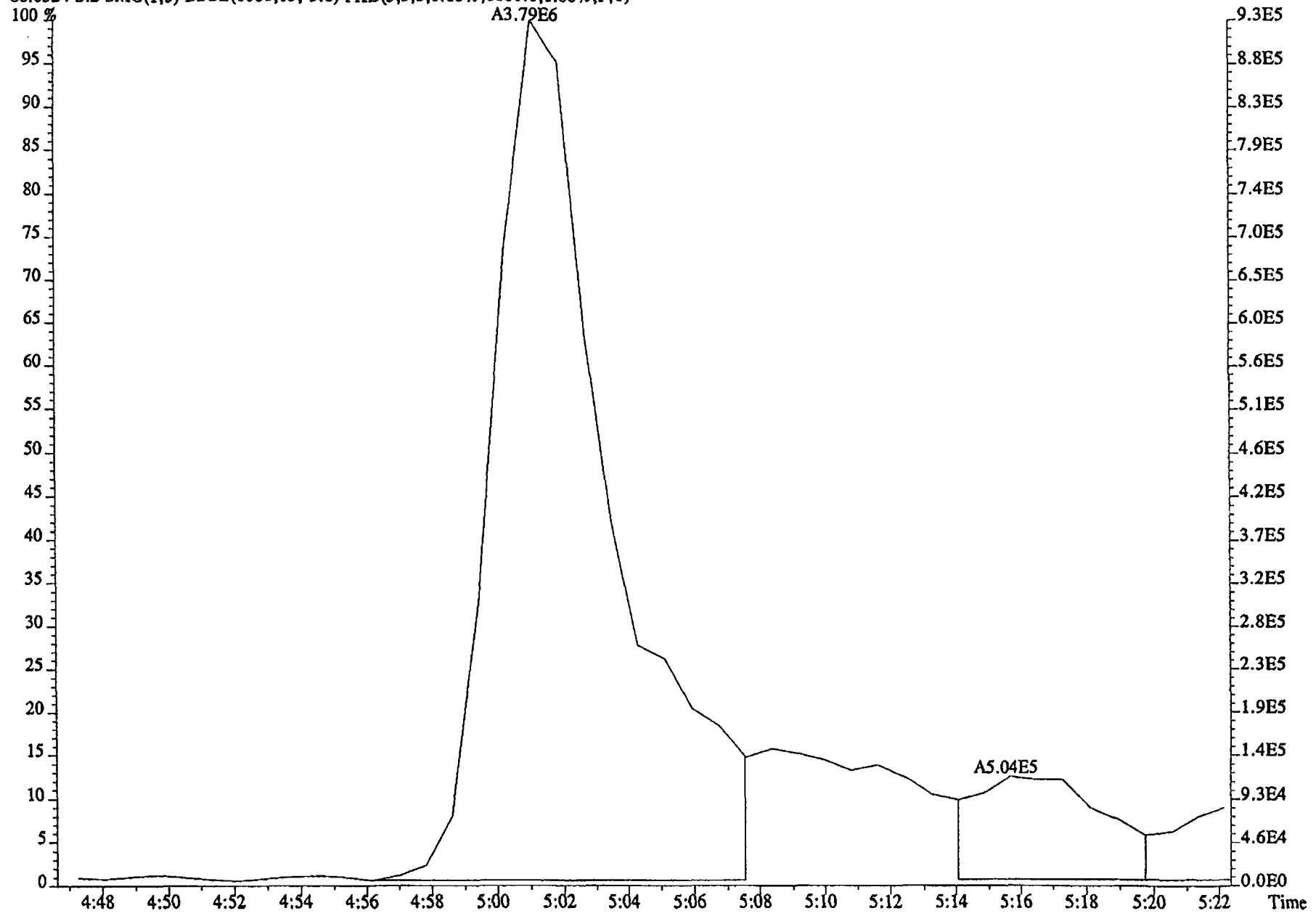
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 22:21:16 GC EI+ Voltage SIR 70SE  
Sample#2 Text:ST1203F :CS2 2350-68B Exp:NDMAVOA  
88.0524 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8680.0,1.00%,F,T)



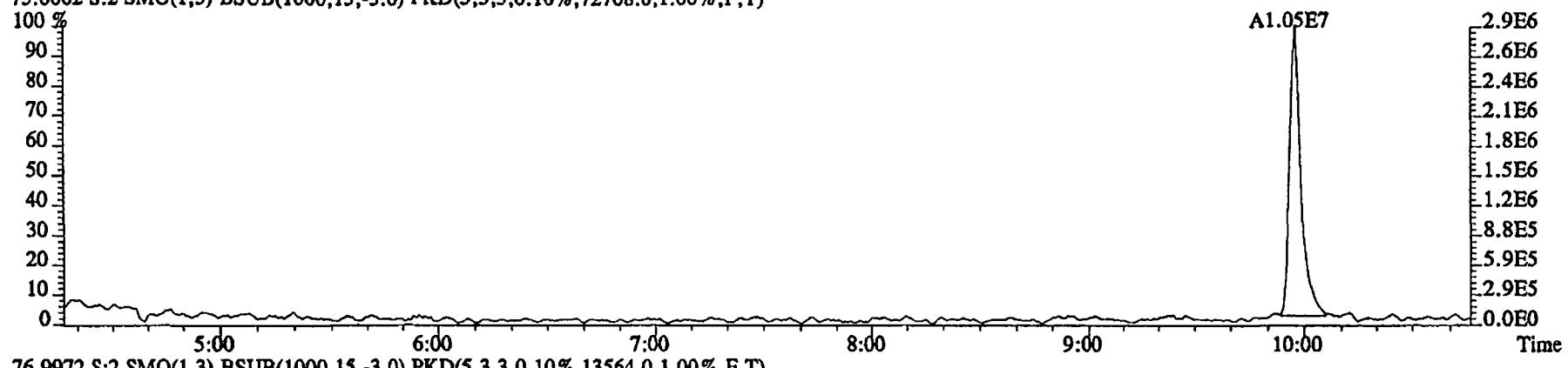
96.1026 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5460.0,1.00%,F,T)



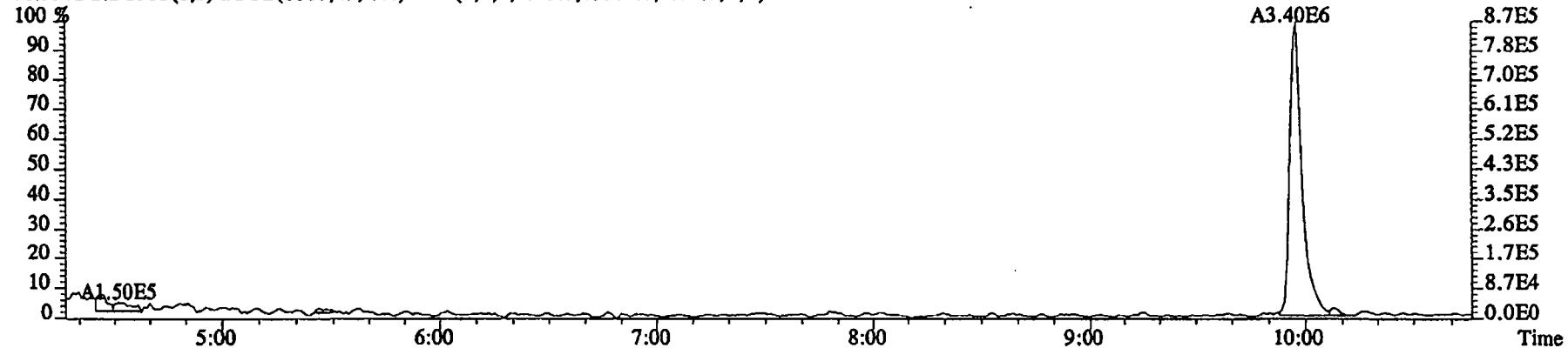
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Sample#2 Text:ST1203F :CS2 2530-68B Exp:NDMAVOA  
88.0524 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8680.0,1.00%,F,T)



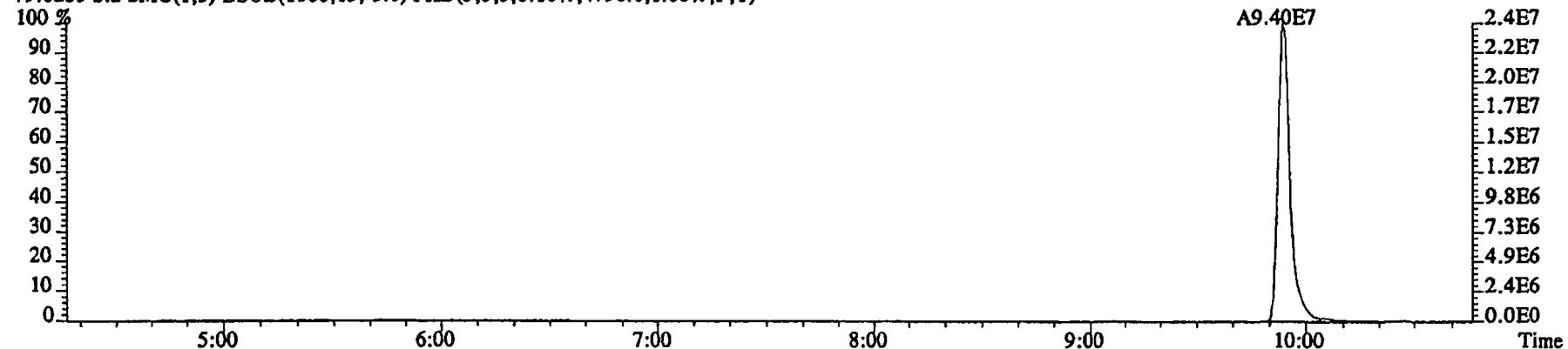
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 Sample#2 Text:ST1203F CS2 2350-68B Exp:NDMAVOA  
 75.0002 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,72708.0,1.00%,F,T)



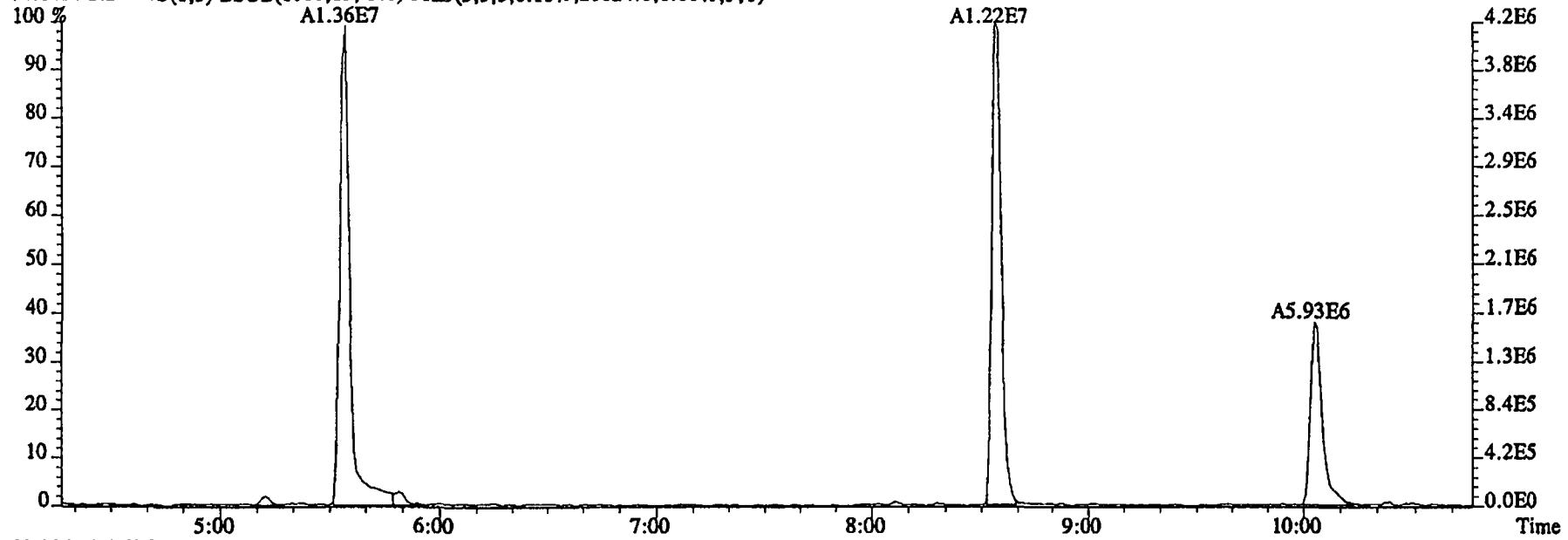
76.9972 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,13564.0,1.00%,F,T)



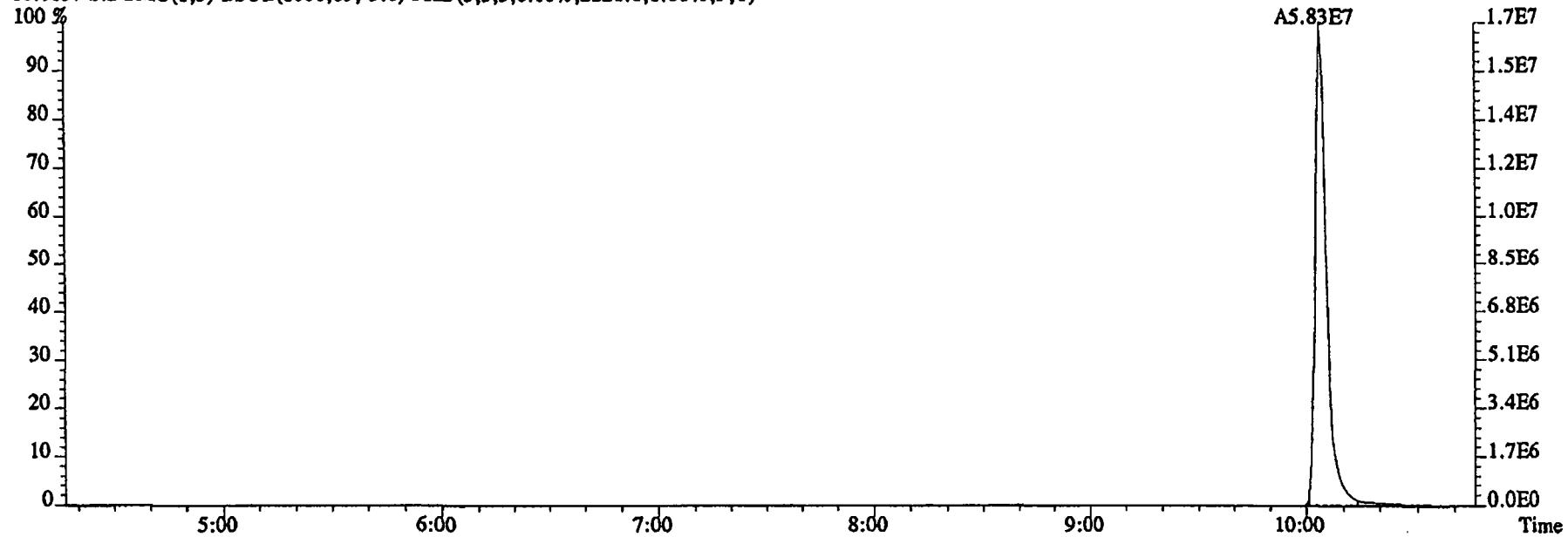
79.0253 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,4796.0,1.00%,F,T)



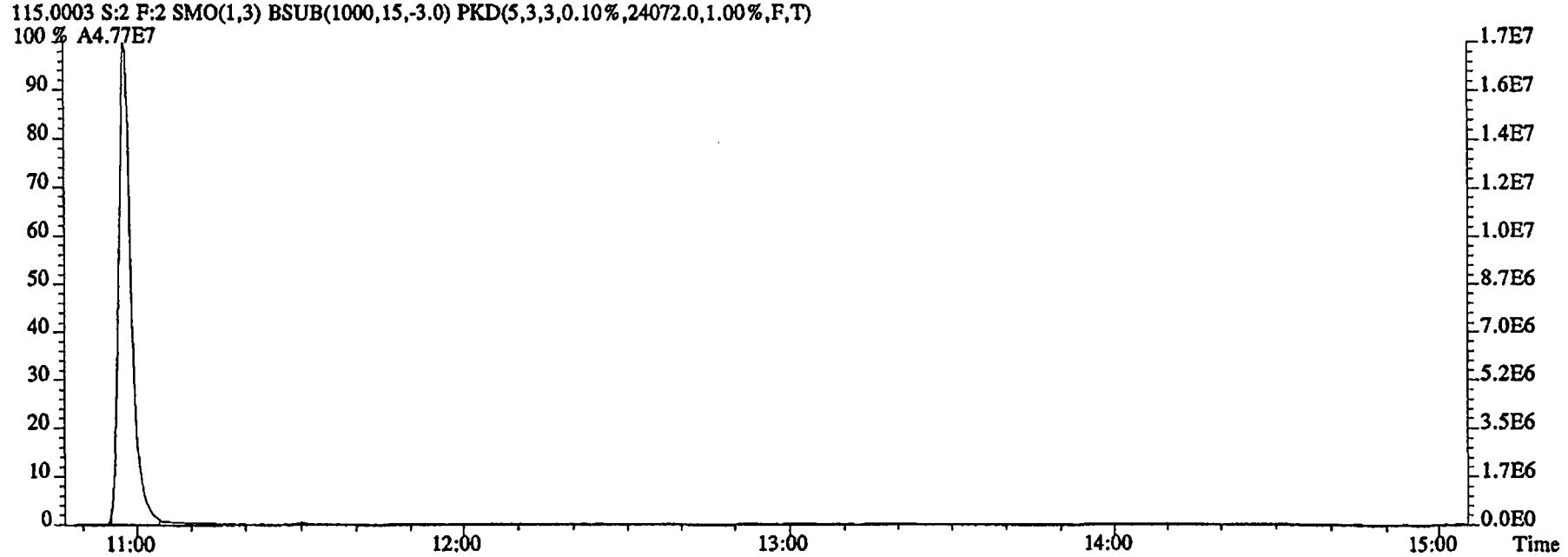
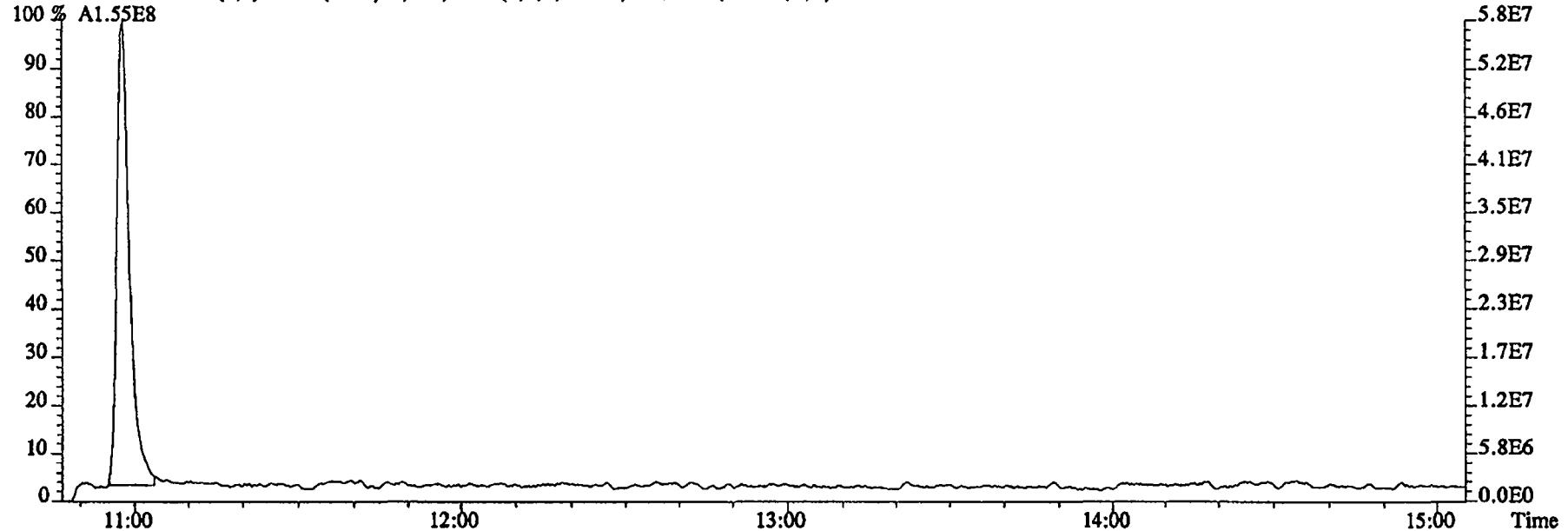
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Sample#2 Text:ST1203F :CS2 2350-68B Exp:NDMAVOA  
74.0480 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,20024.0,1.00%,F,T)



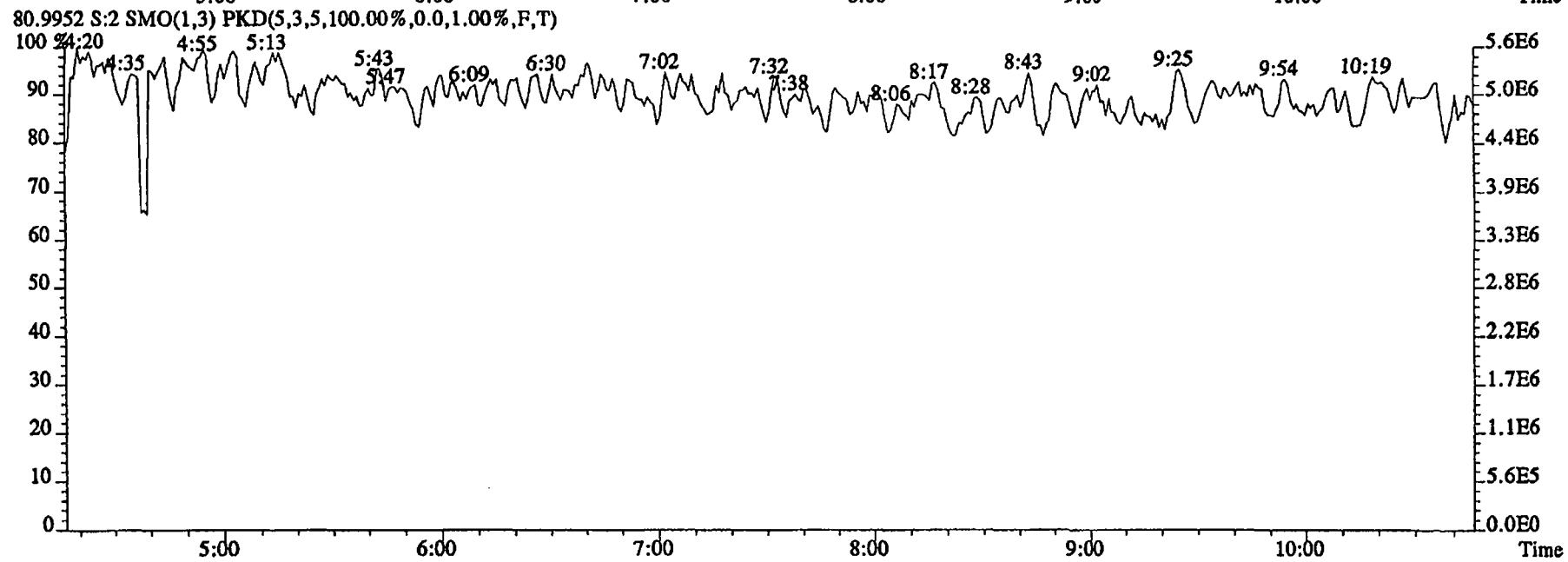
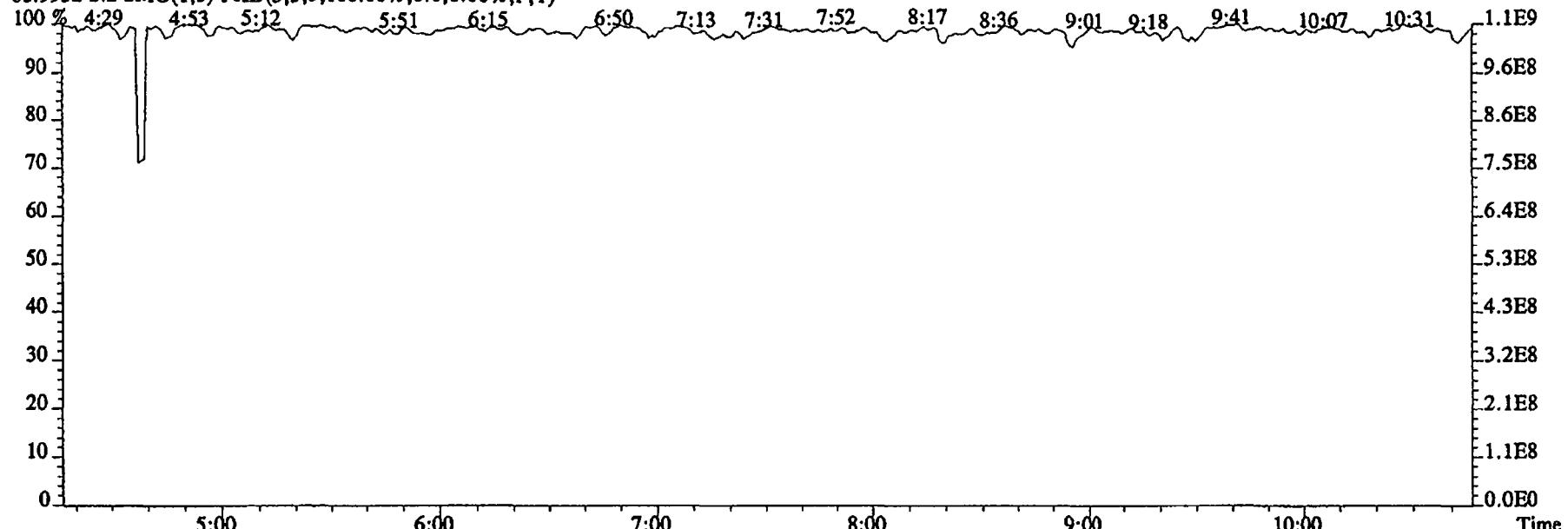
80.0857 S:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2228.0,1.00%,F,T)



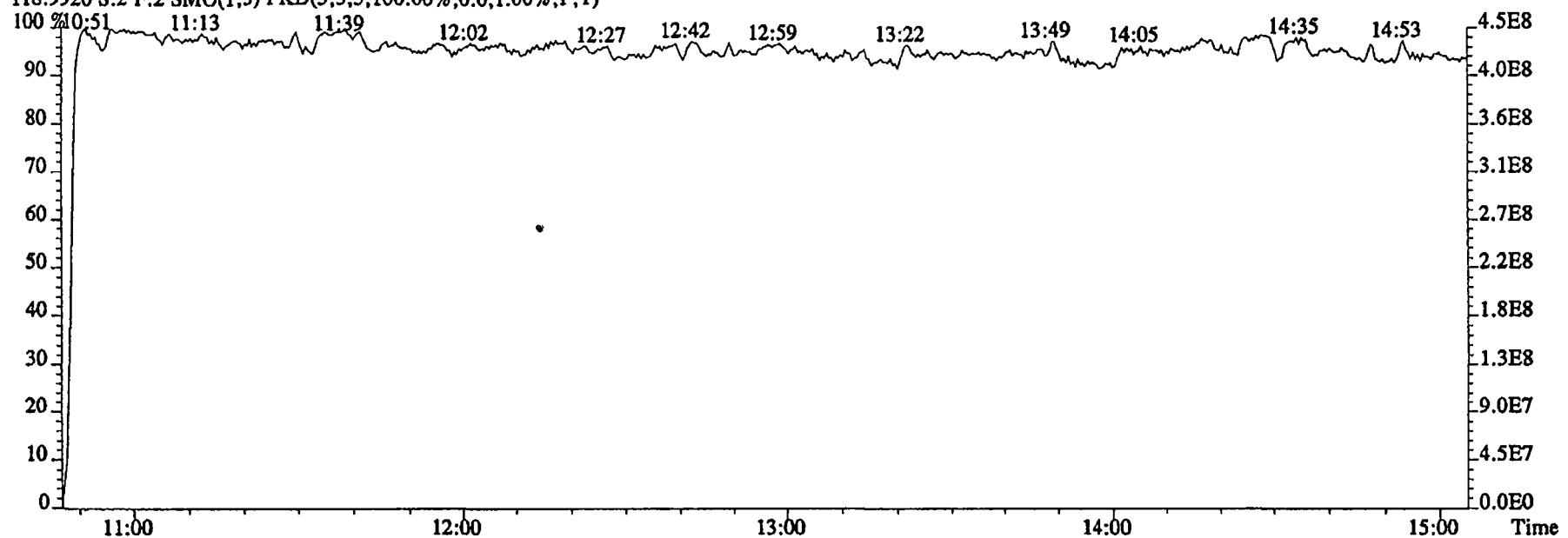
File:03DE04B5SP #1-602 Acq: 3-DEC-2004 22:21:16 GC El+ Voltage SIR 70SE  
Sample#2 Text:ST1203F :CS2 2350-68B Exp:NDMAVOA  
113.0032 S:2 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2521952.0,1.00%,F,T)



File:03DE04B5SP #1-480 Acq: 3-DEC-2004 22:21:16 GC El+ Voltage SIR 70SE  
Sample#2 Text:ST1203F :CS2 2350-68B Exp:NDMAVOA  
68.9952 S:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

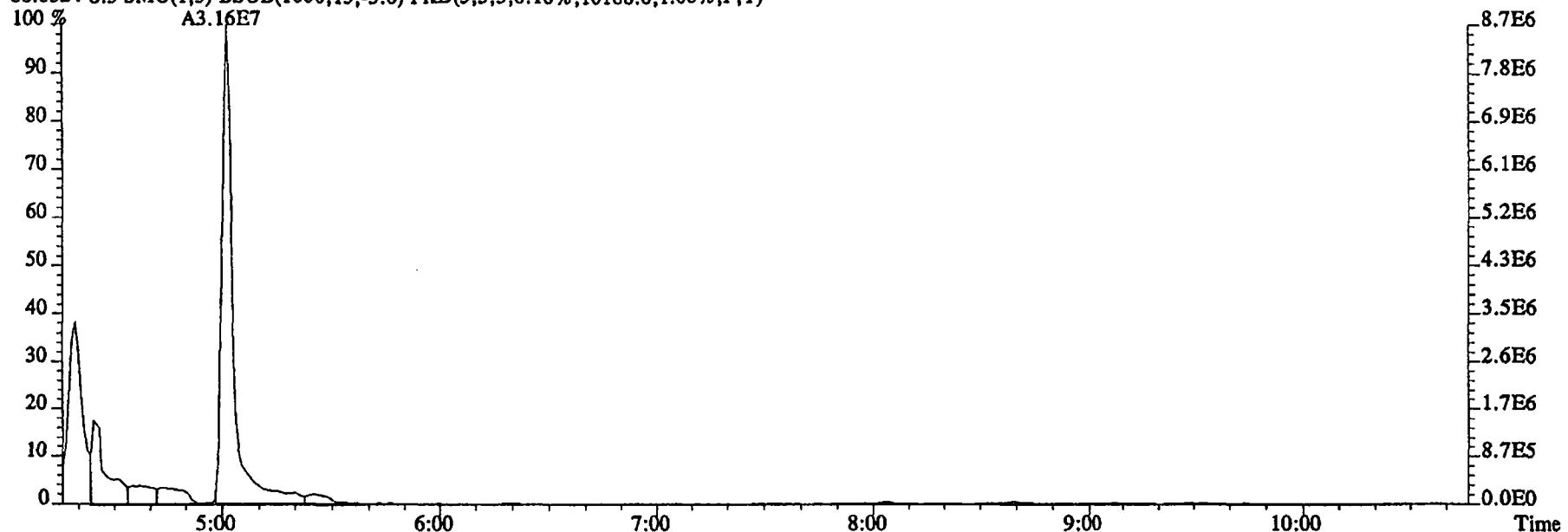


File:03DE04B5SP #1-602 Acq: 3-DEC-2004 22:21:16 GC EI+ Voltage SIR 70SE  
Sample#2 Text:ST1203F :CS2 2350-68B Exp:NDMAVOA  
118.9920 S:2 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

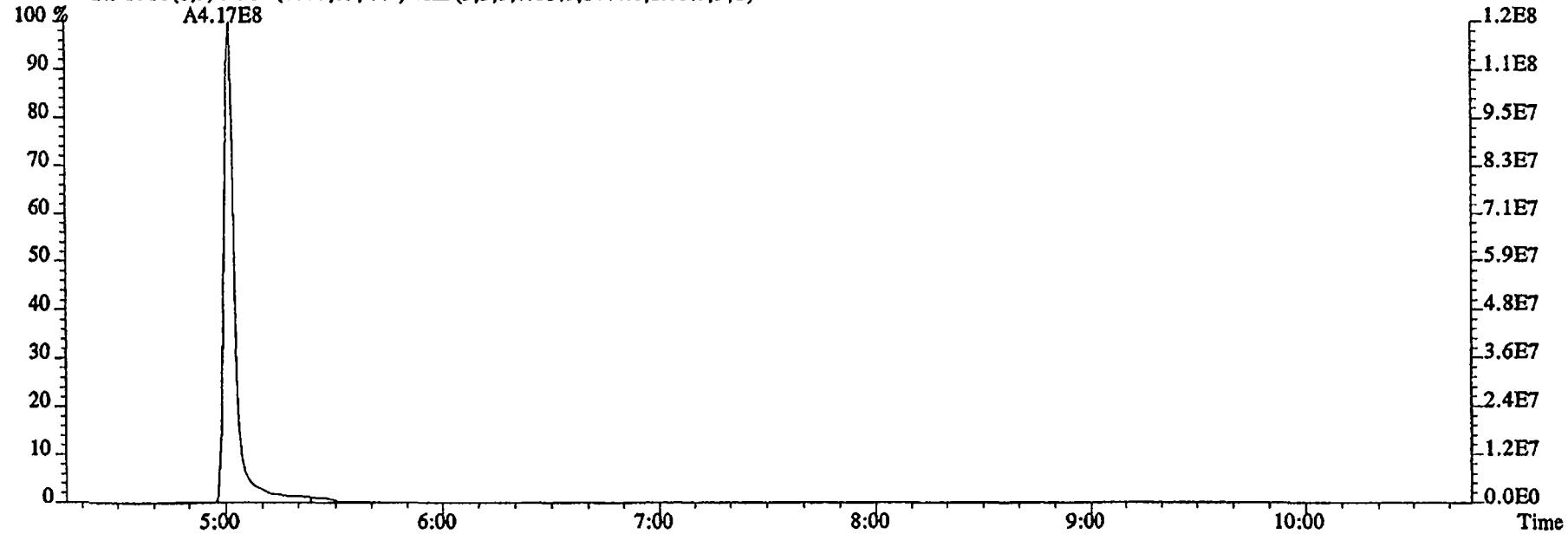


111.9936 S:2 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)

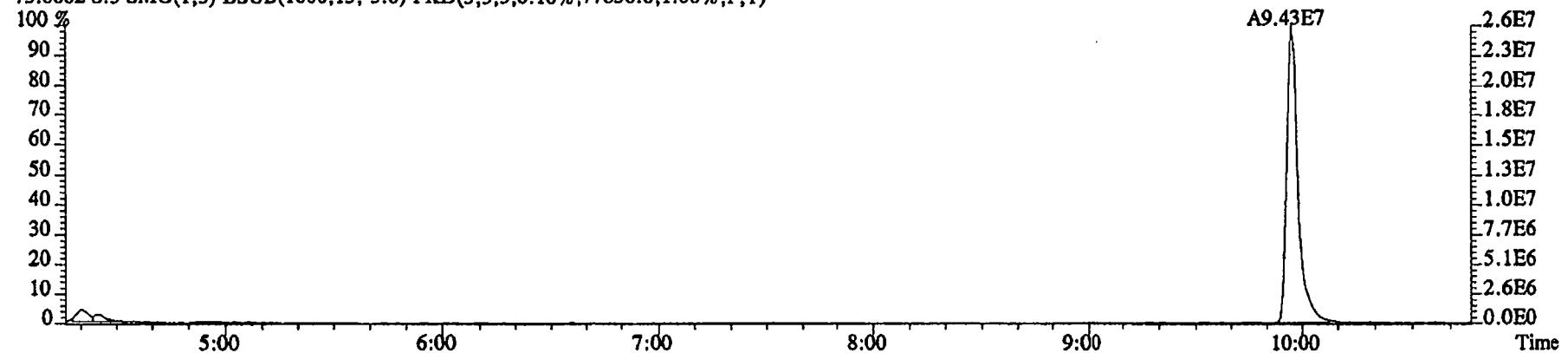
File:03DE04BSSP #1-481 Acq: 3-DEC-2004 22:41:34 GC El+ Voltage SIR 70SE  
Sample#3 Text:ST1203G :CS3 2350-68C Exp:NDMAVOA  
88.0524 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10188.0,1.00%,F,T)



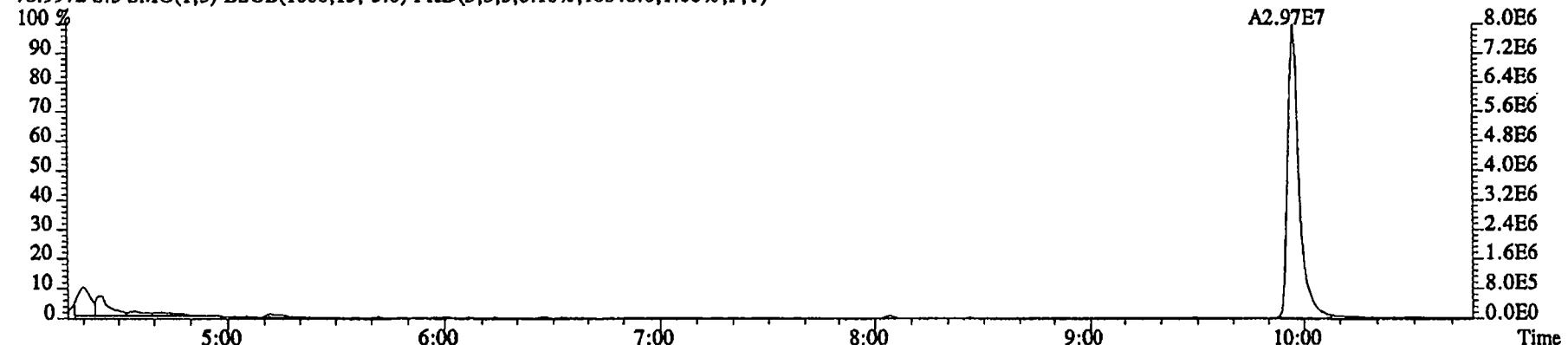
96.1026 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8444.0,1.00%,F,T)



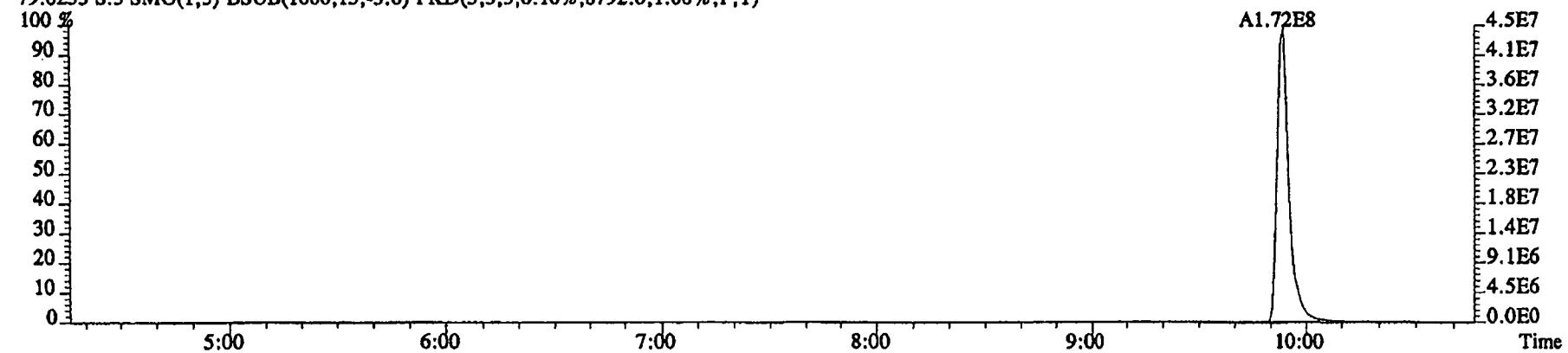
File:03DE04B5SP #1-481 Acq: 3-DEC-2004 22:41:34 GC EI+ Voltage SIR 70SE  
 Sample#3 Text:ST1203G :CS3 2350-68C Exp:NDMAVOA  
 75.0002 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,77856.0,1.00%,F,T)



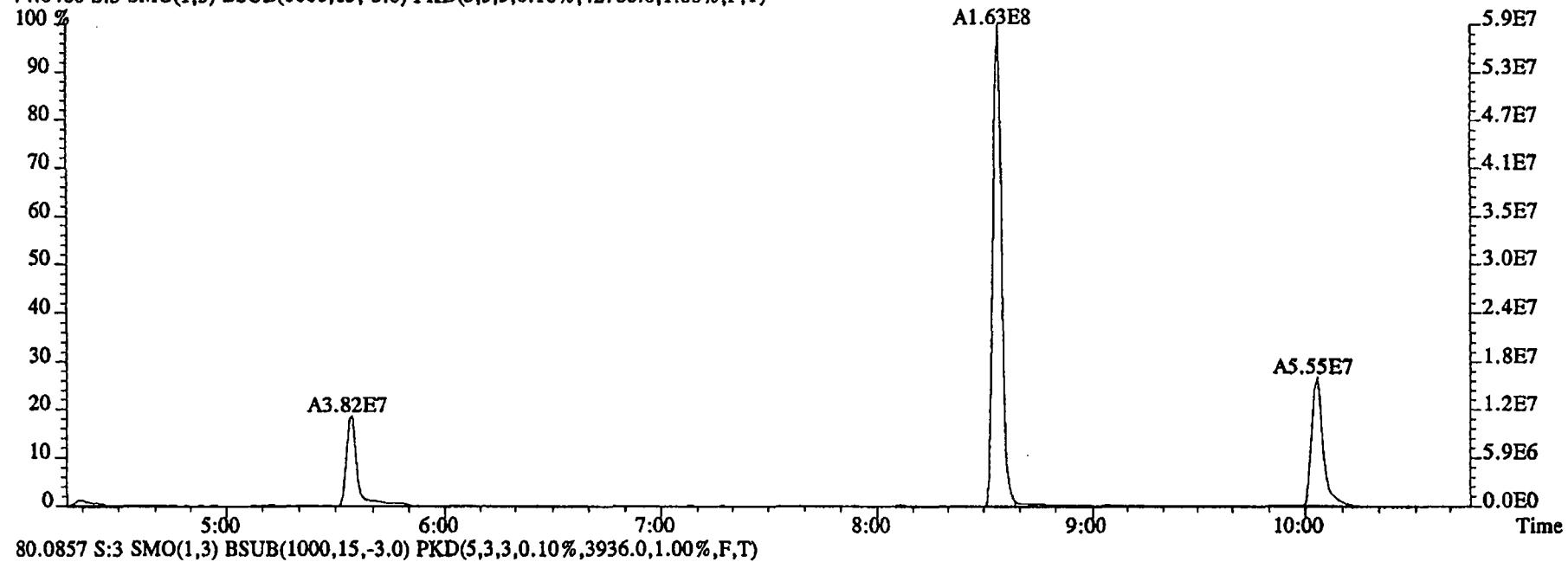
76.9972 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,16848.0,1.00%,F,T)



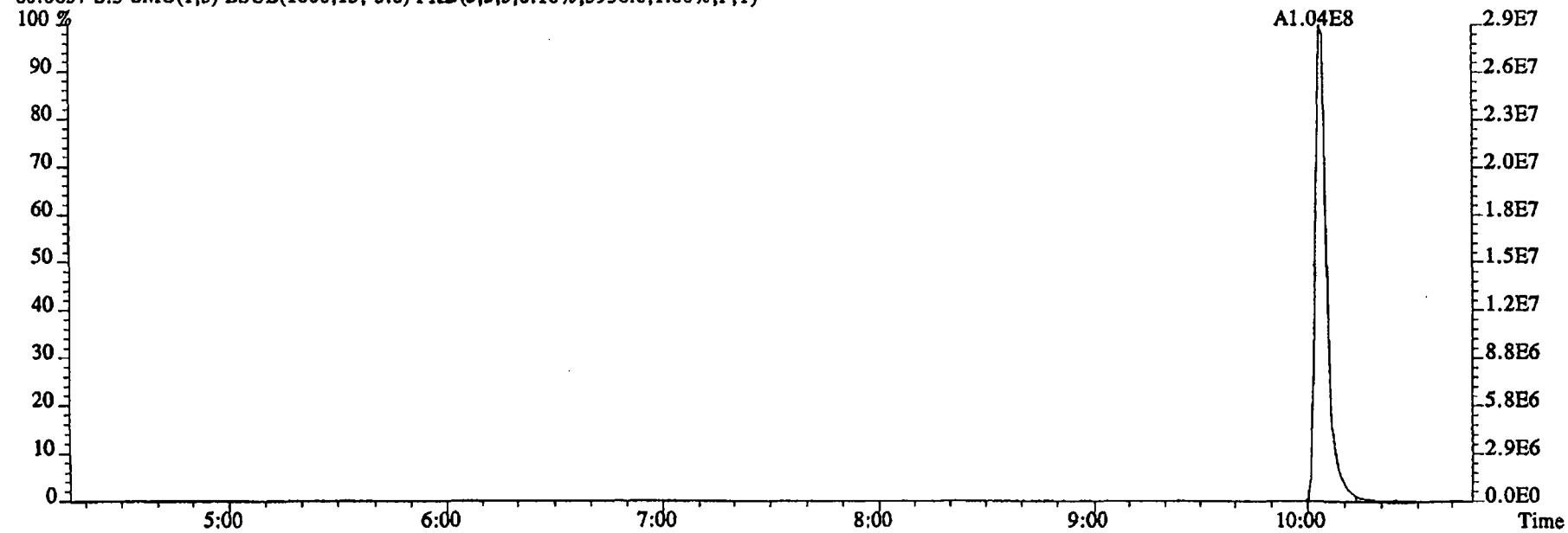
79.0253 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8792.0,1.00%,F,T)



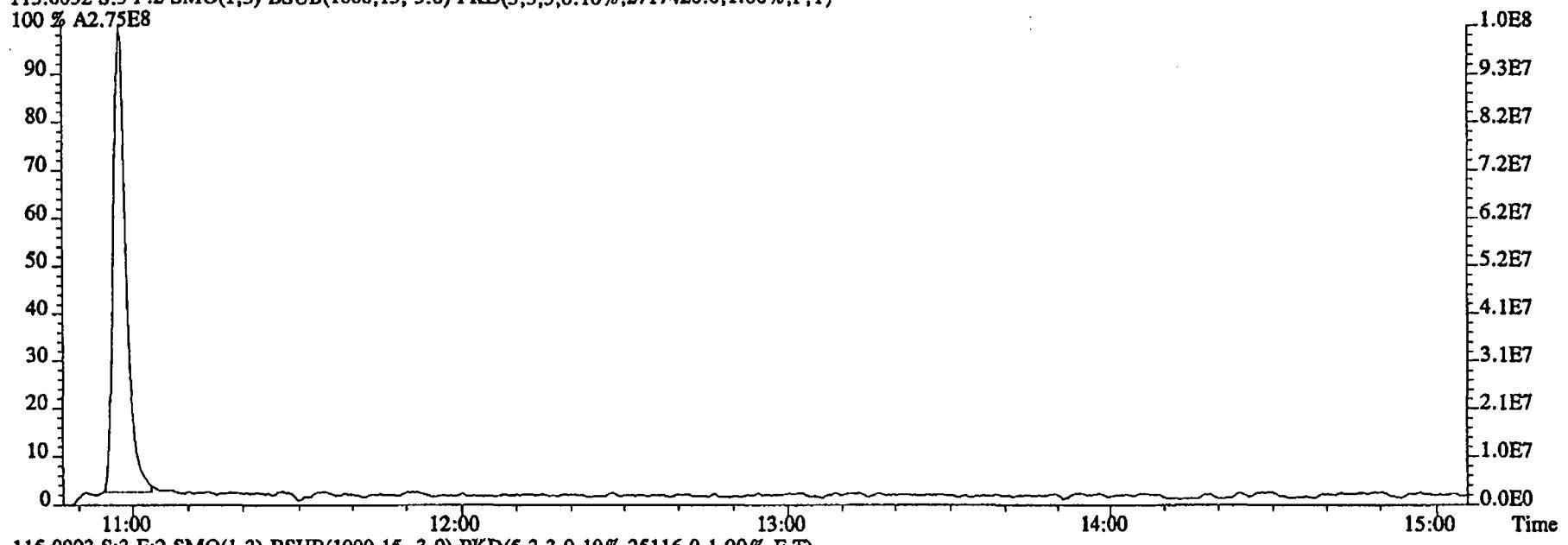
File:03DE04BSSP #1-481 Acq: 3-DEC-2004 22:41:34 GC EI+ Voltage SIR 70SE  
Sample#3 Text:ST1203G :CS3 2350-68C Exp:NDMAVOA  
74.0480 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,42768.0,1.00%,F,T)



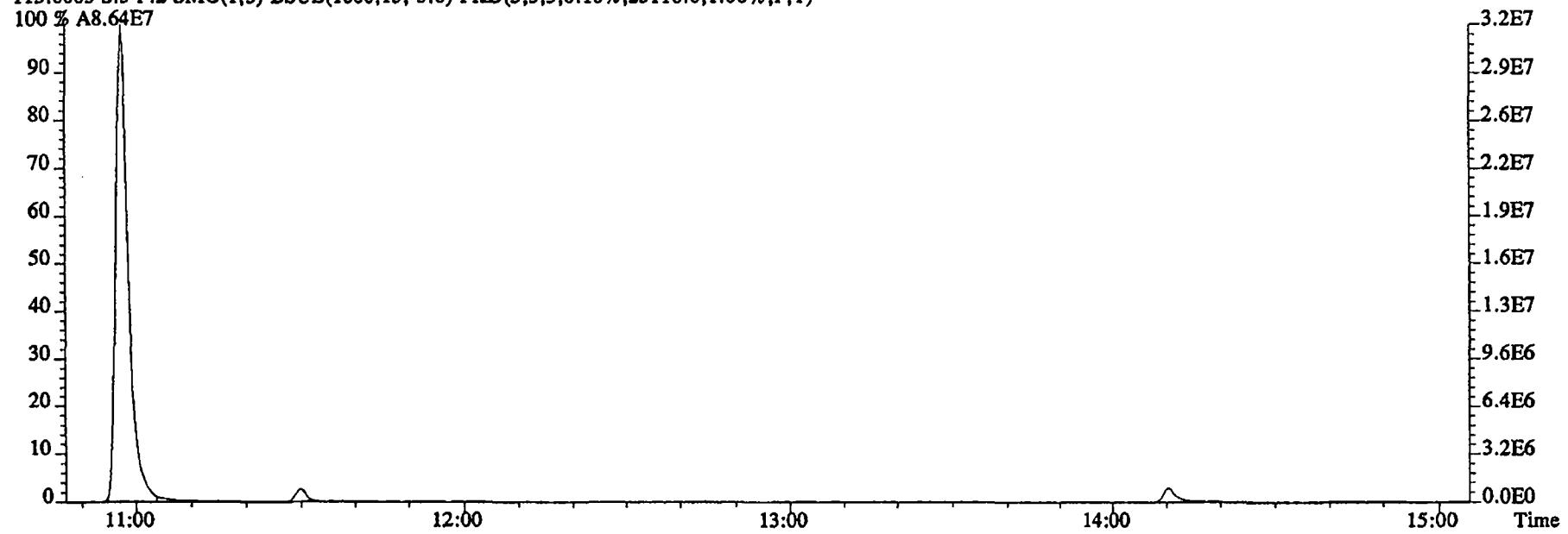
80.0857 S:3 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3936.0,1.00%,F,T)



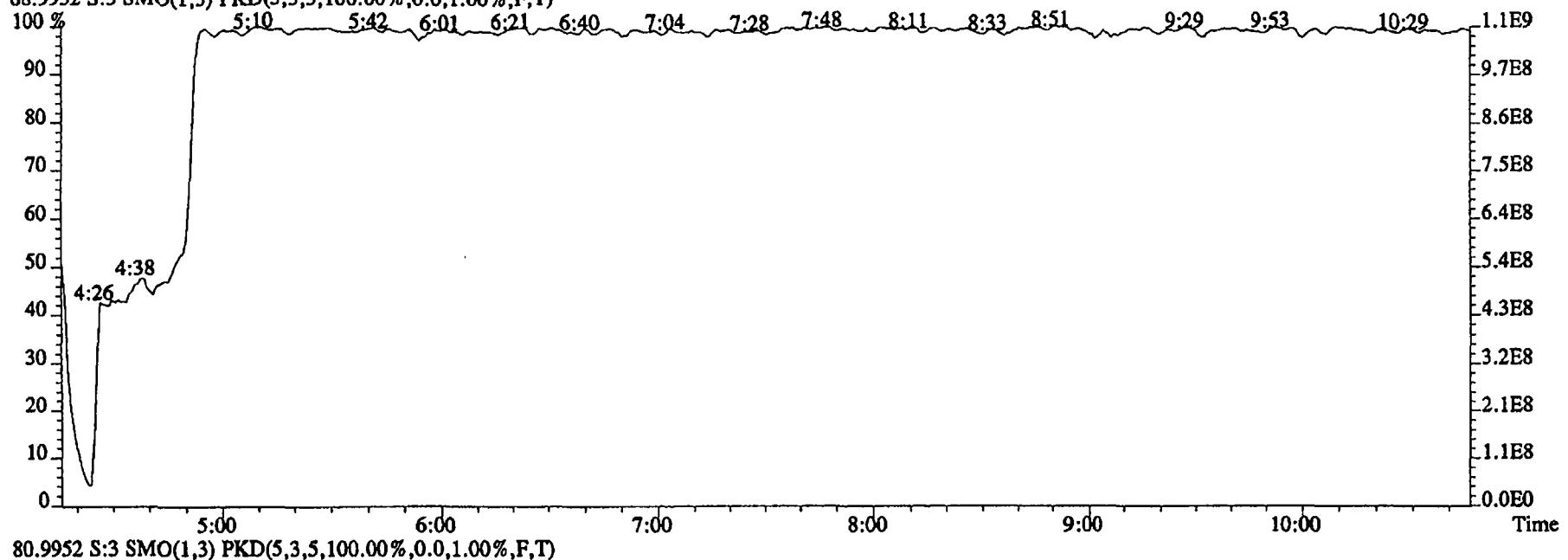
File:03DE04B5SP #1-602 Acq: 3-DEC-2004 22:41:34 GC EI+ Voltage SIR 70SE  
Sample#3 Text:ST1203G :CS3 2350-68C Exp:NDMAVOA  
113.0032 S:3 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2717420.0,1.00%,F,T)  
100 % A2.75E8



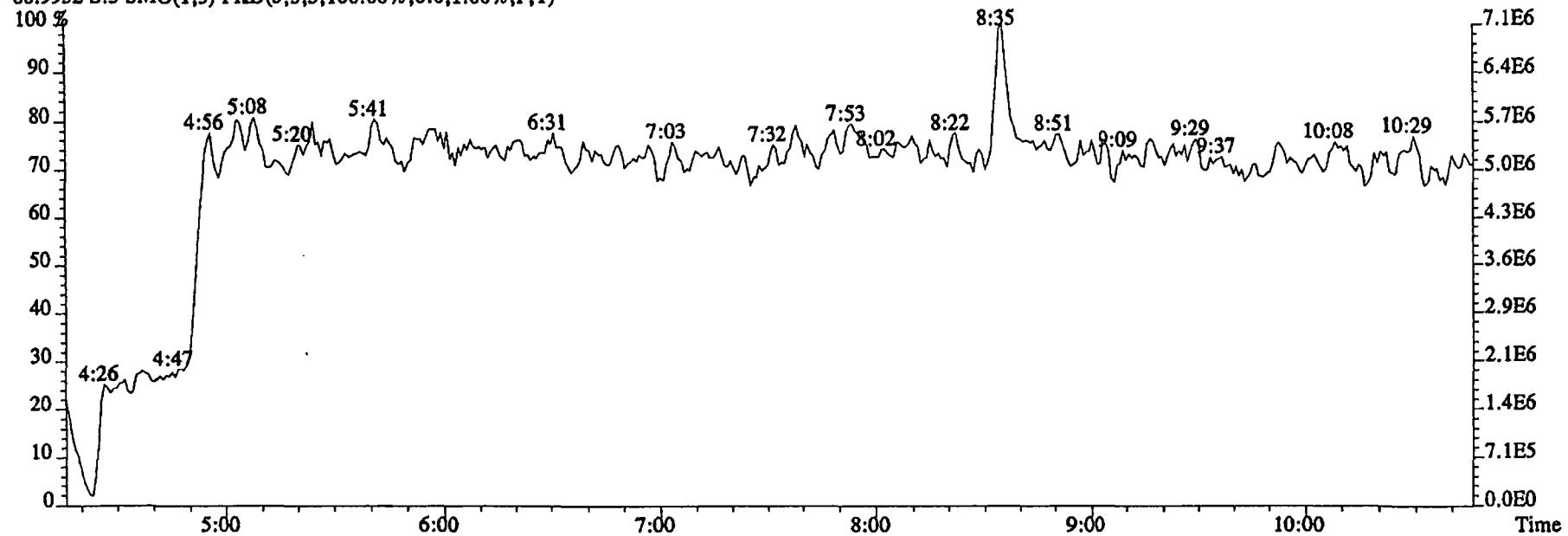
115.0003 S:3 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,25116.0,1.00%,F,T)  
100 % A8.64E7



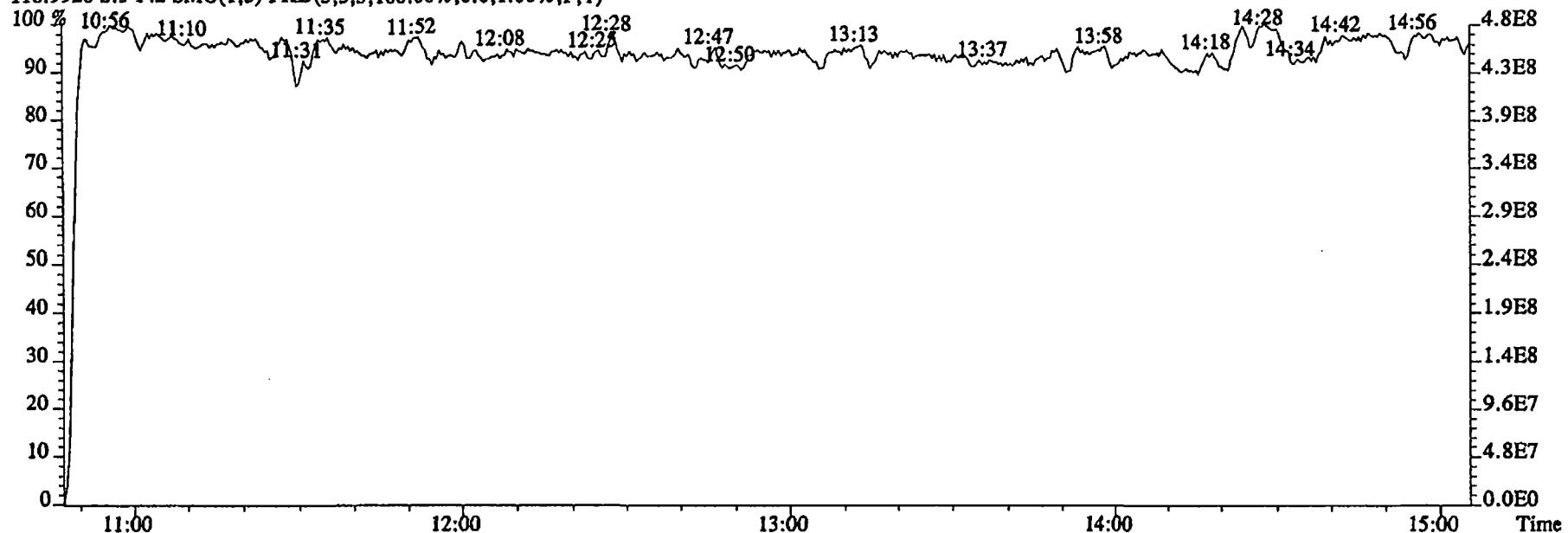
File:03DE04B5SP #1-481 Acq: 3-DEC-2004 22:41:34 GC EI+ Voltage SIR 70SE  
 Sample#3 Text:ST1203G :CS3 2350-68C Exp:NDMAVOA  
 68.9952 S:3 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



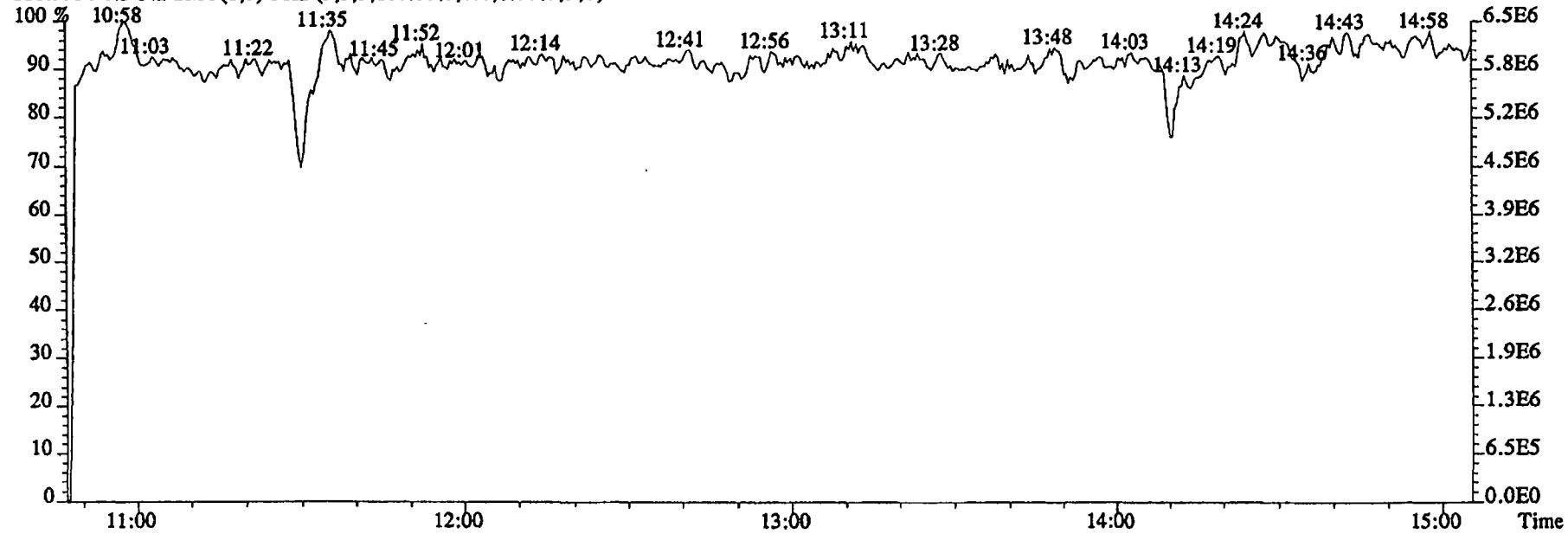
80.9952 S:3 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



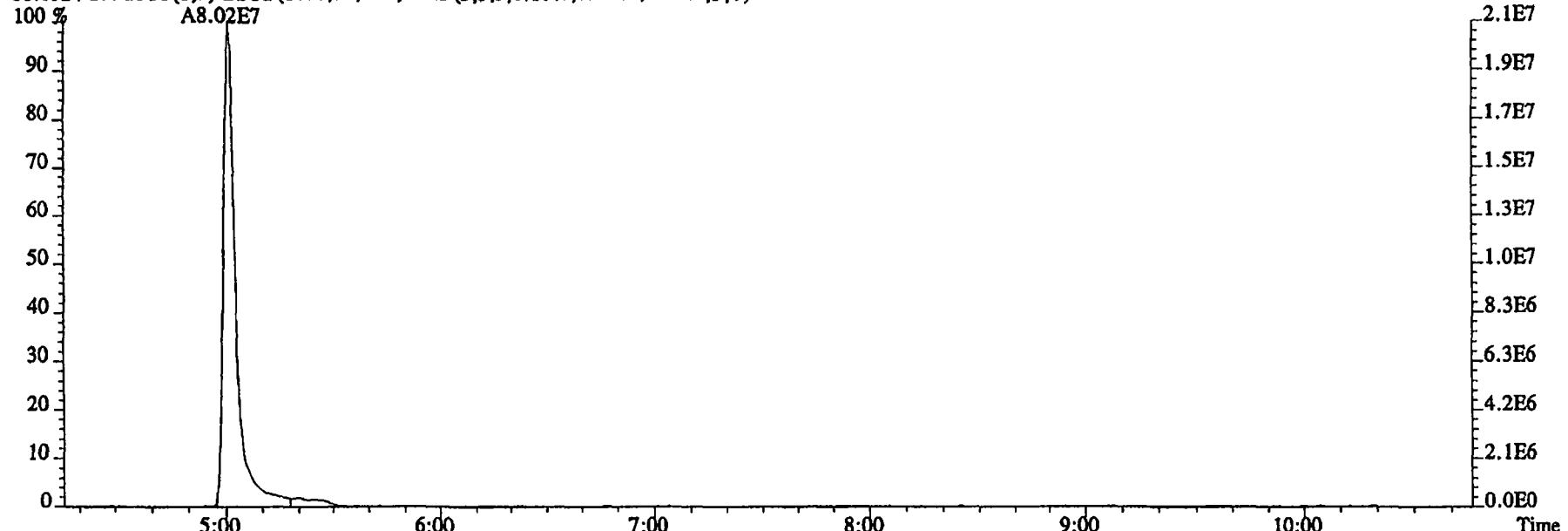
File:03DE04B5SP #1-602 Acq: 3-DEC-2004 22:41:34 GC EI+ Voltage SIR 70SE  
 Sample#3 Text:ST1203G :CS3 2350-68C Exp:NDMAVOA  
 118.9920 S:3 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



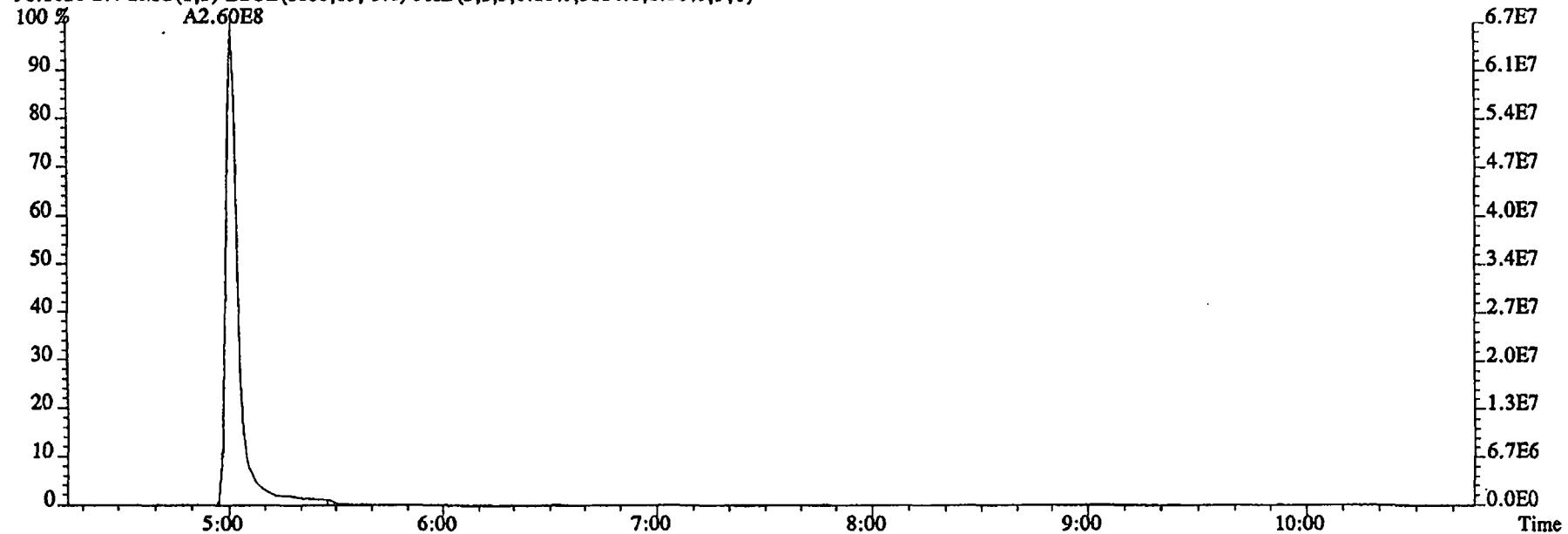
111.9936 S:3 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



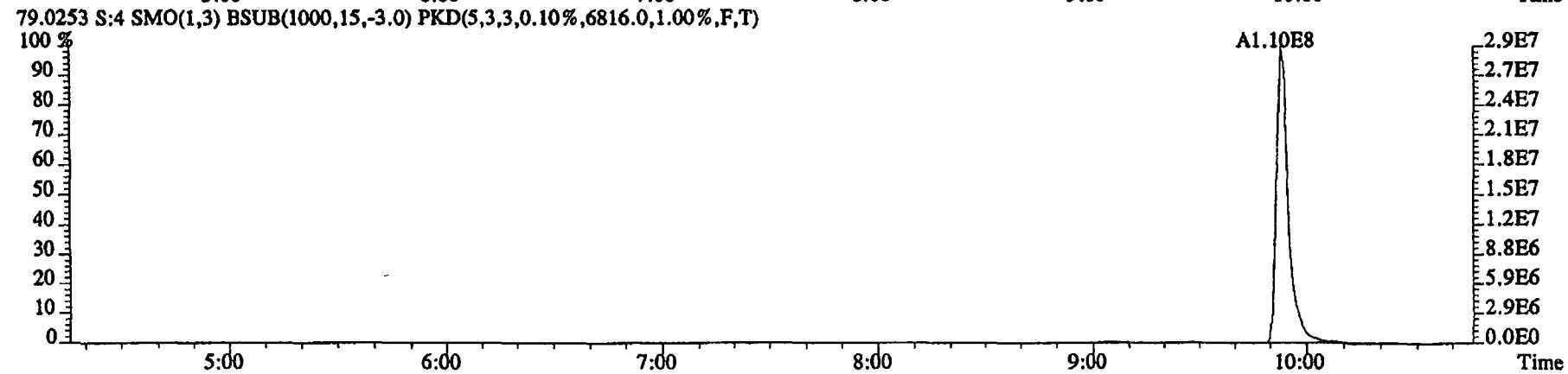
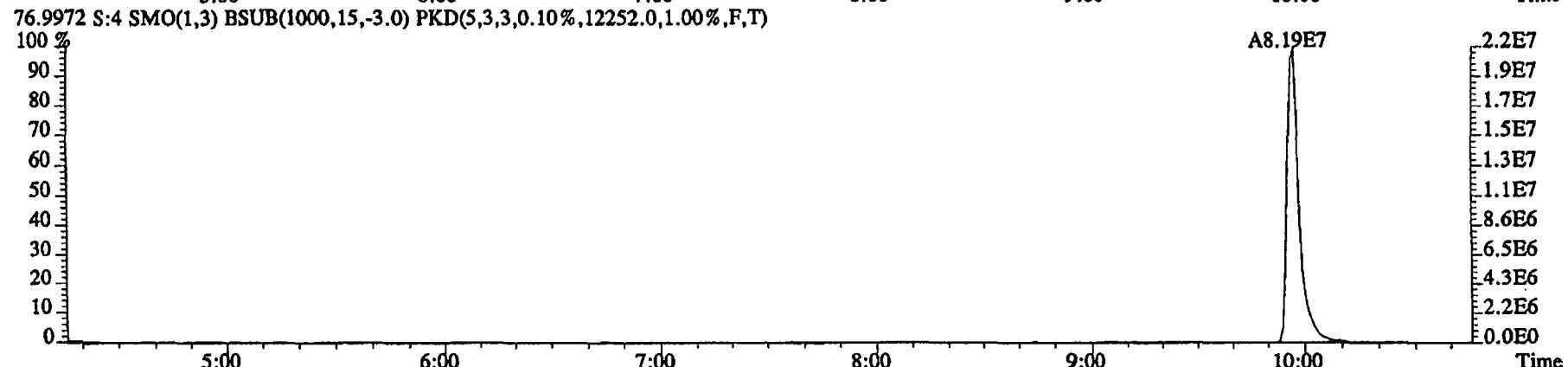
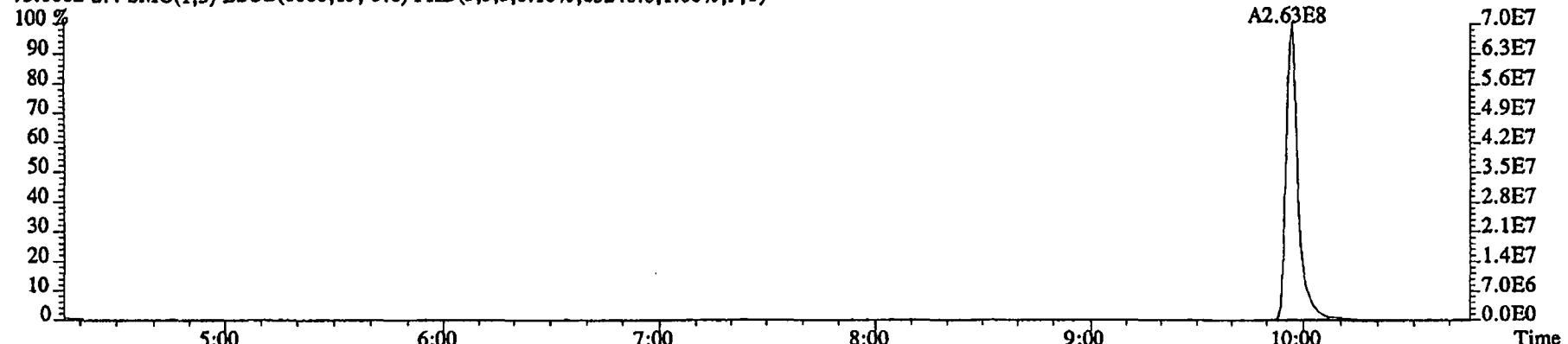
File:03DE04B5SP #1-481 Acq: 3-DEC-2004 23:01:55 GC EI+ Voltage SIR 70SE  
Sample#4 Text:ST1203H .CS4 2350-68D Exp:NDMAVOA  
88.0524 S:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,8948.0,1.00%,F,T)



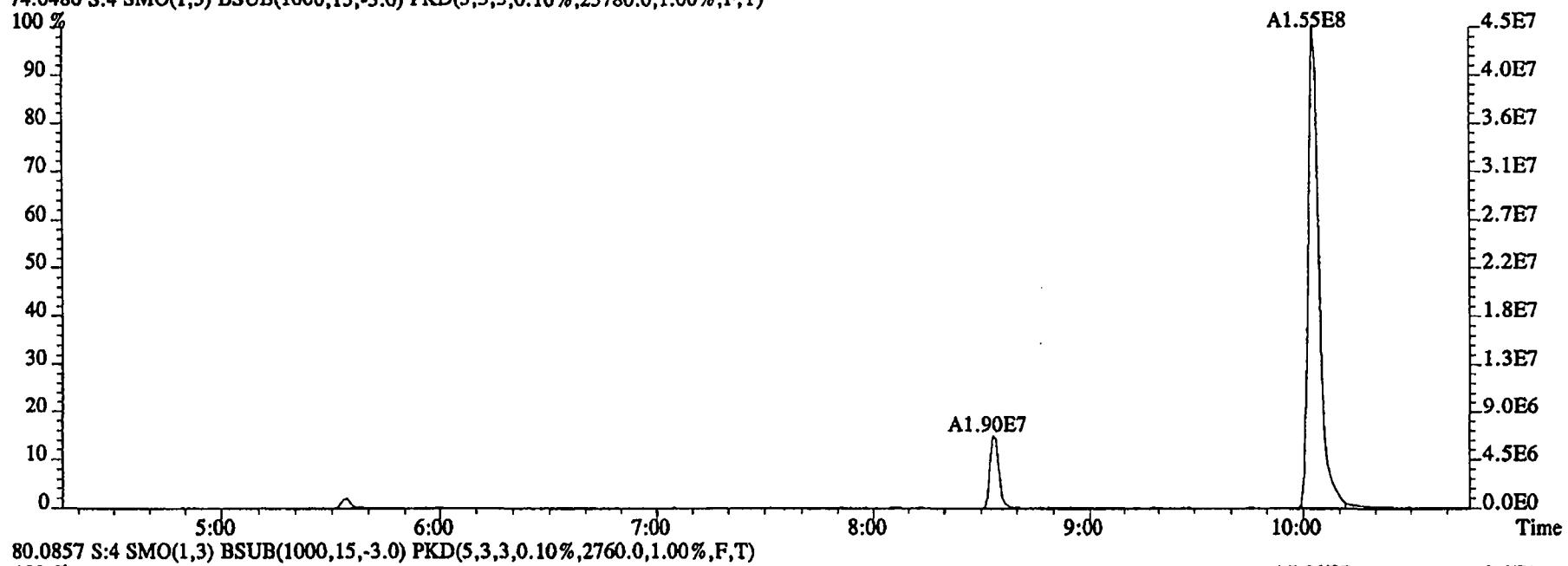
96.1026 S:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,5884.0,1.00%,F,T)  
100 % A2.60E8



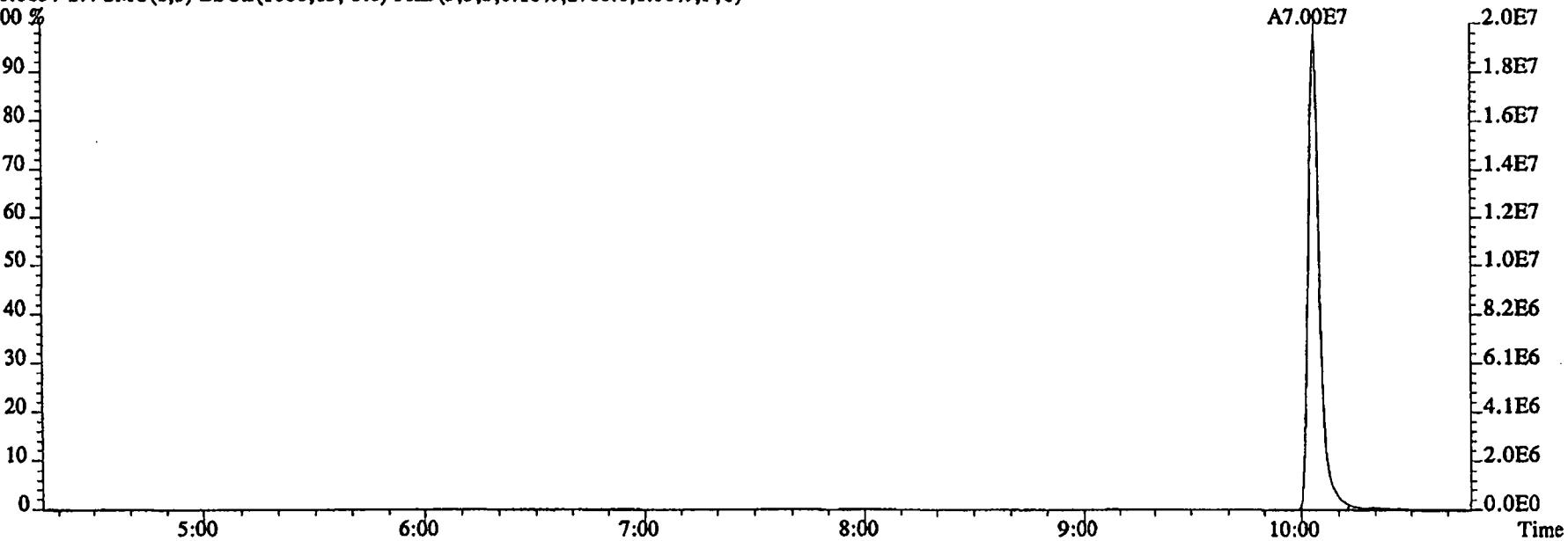
File:03DE04B5SP #1-481 Acq: 3-DEC-2004 23:01:55 GC EI+ Voltage SIR 70SE  
Sample#4 Text:ST1203H :CS4 2350-68D Exp:NDMAVOA  
75.0002 S:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,65240.0,1.00%,F,T)



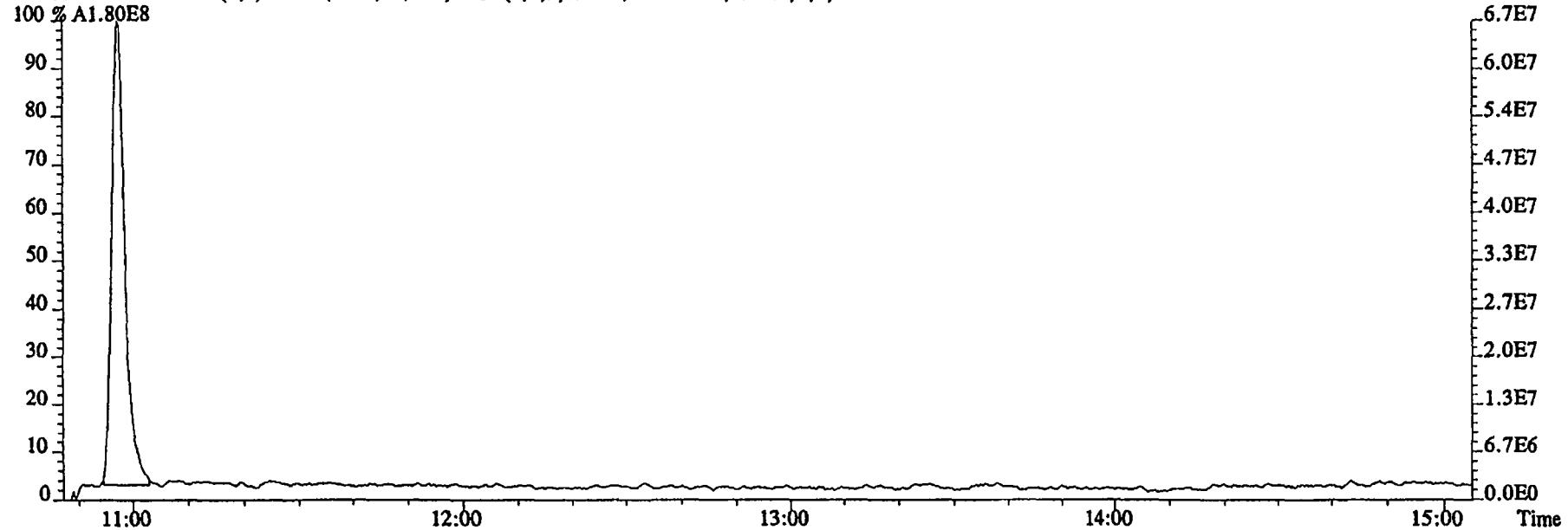
File:03DE04B5SP #1-481 Acq: 3-DEC-2004 23:01:55 GC EI+ Voltage SIR 70SE  
Sample#4 Text:ST1203H :CS4 2350-68D Exp:NDMAVOA  
74.0480 S:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,25780.0,1.00%,F,T)



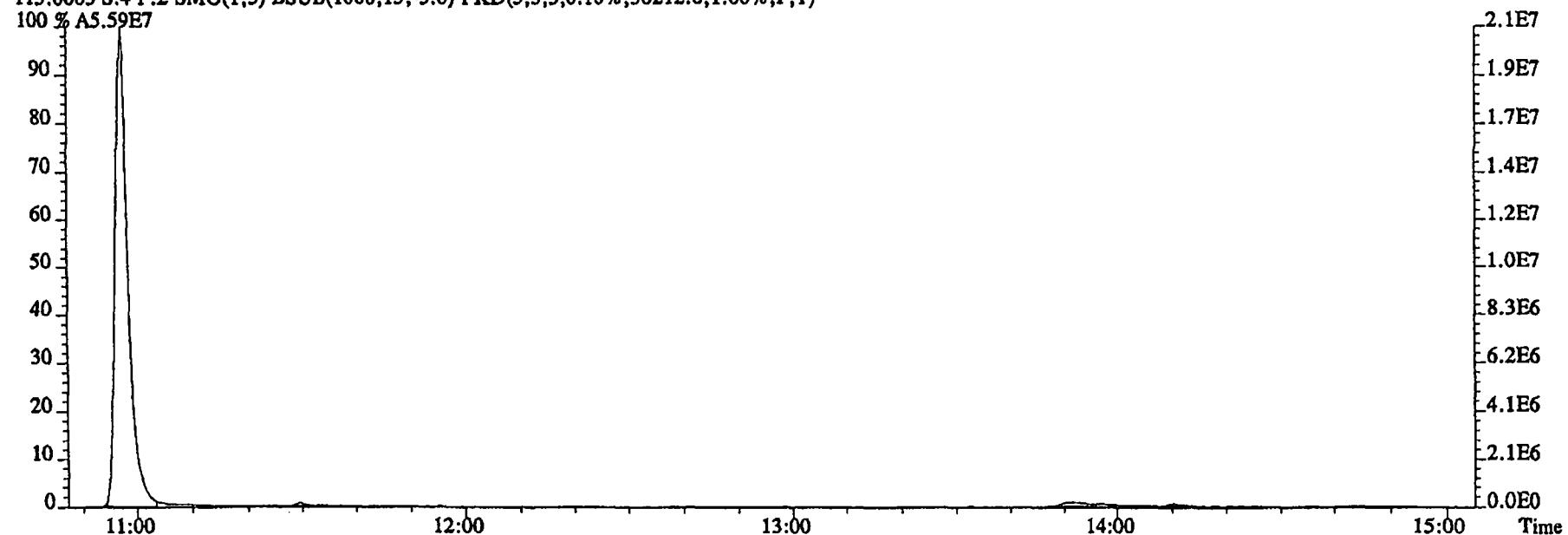
80.0857 S:4 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2760.0,1.00%,F,T)



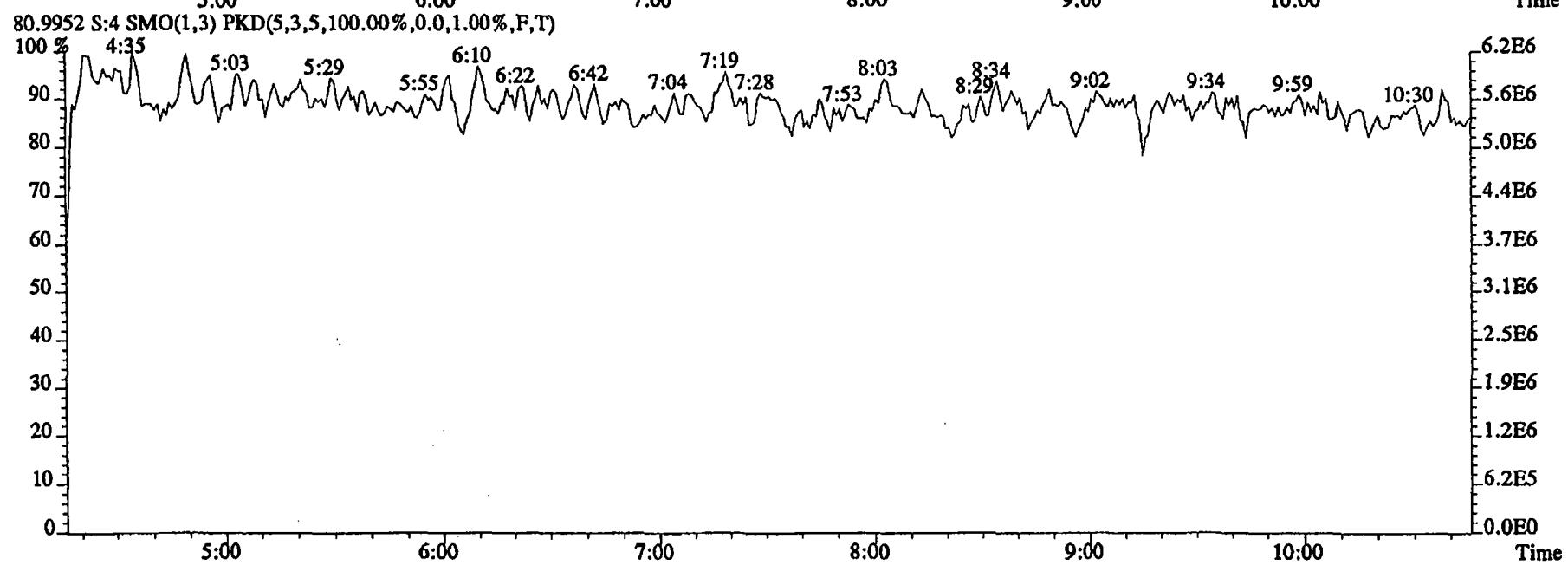
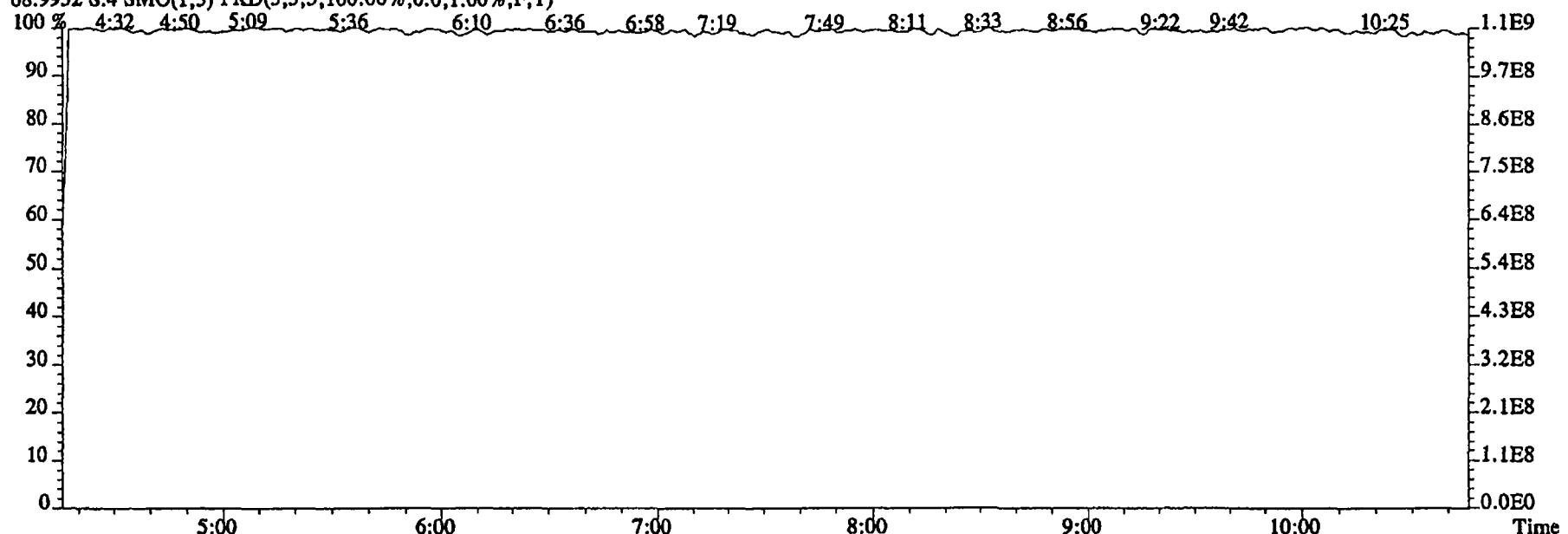
File:03DE04B5SP #1-601 Acq: 3-DEC-2004 23:01:55 GC EI+ Voltage SIR 70SE  
Sample#4 Text:ST1203H :CS4 2350-68D Exp:NDMAVOA  
113.0032 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2425856.0,1.00%,F,T)



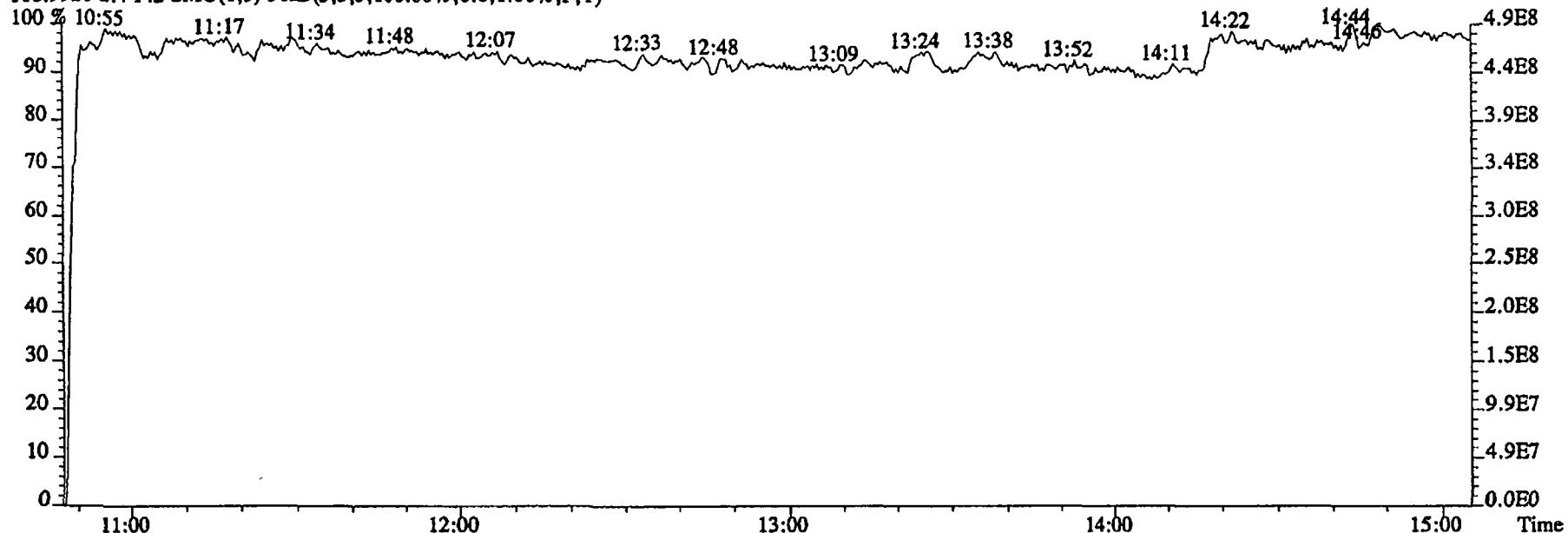
115.0003 S:4 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,30212.0,1.00%,F,T)



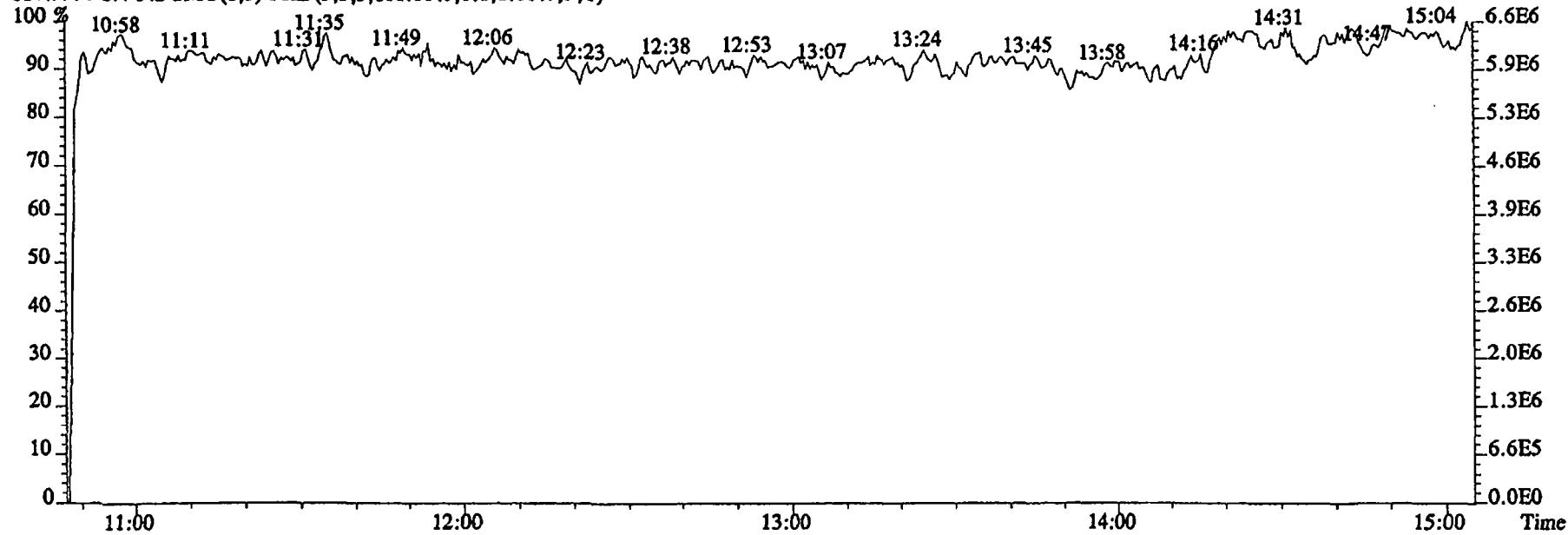
File:03DE04B5SP #1-481 Acq: 3-DEC-2004 23:01:55 GC EI + Voltage SIR 70SE  
Sample#4 Text:ST1203H :CS4 2350-68D Exp:NDMAVOA  
68.9952 S:4 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



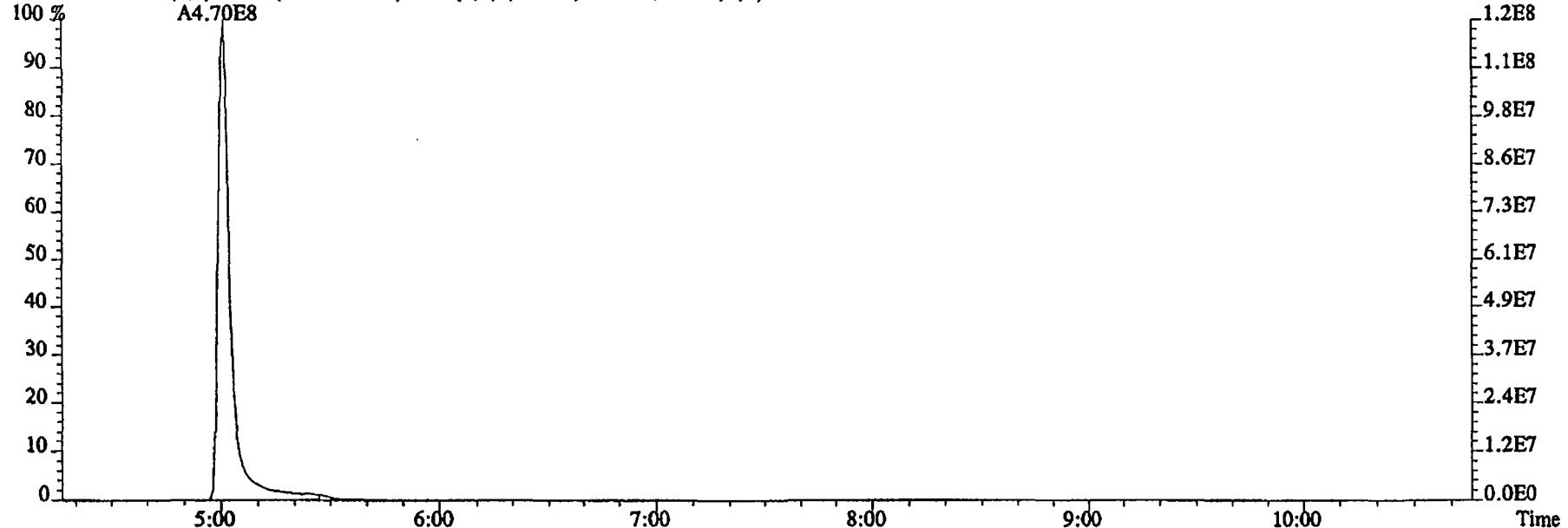
File:03DE04B5SP #1-601 Acq: 3-DEC-2004 23:01:55 GC EI+ Voltage SIR 70SE  
Sample#4 Text:ST1203H :CS4 2350-68D Exp:NDMAVOA  
118.9920 S:4 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



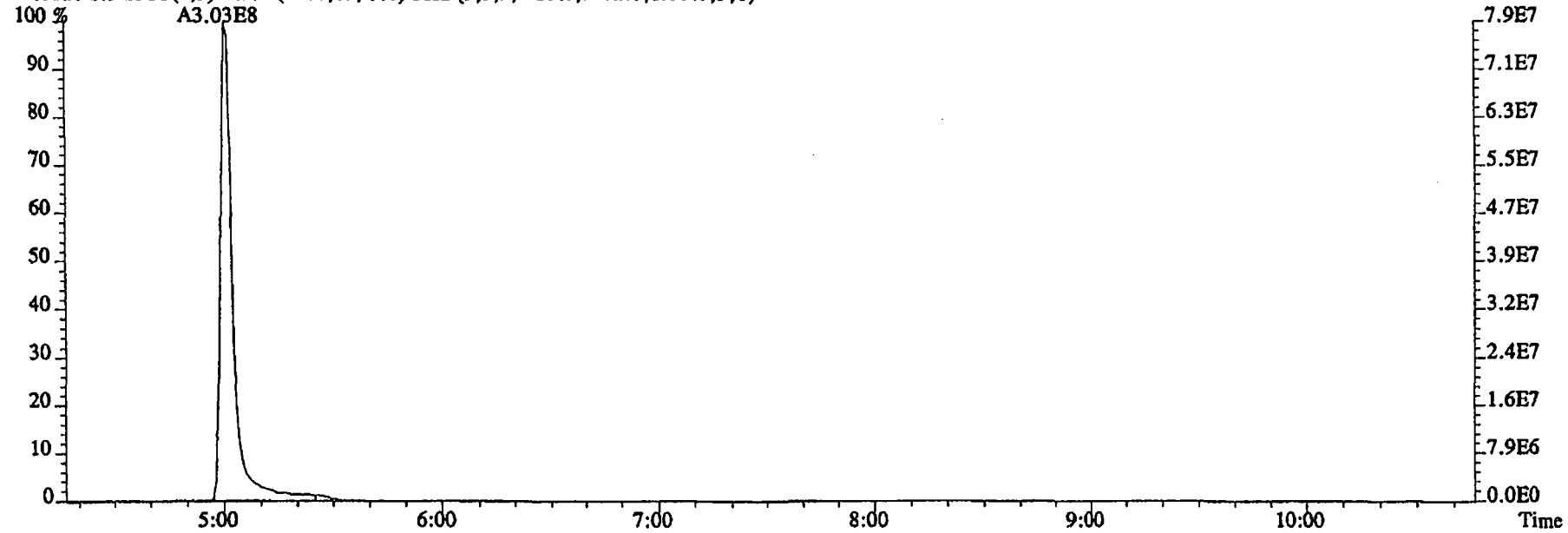
111.9936 S:4 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



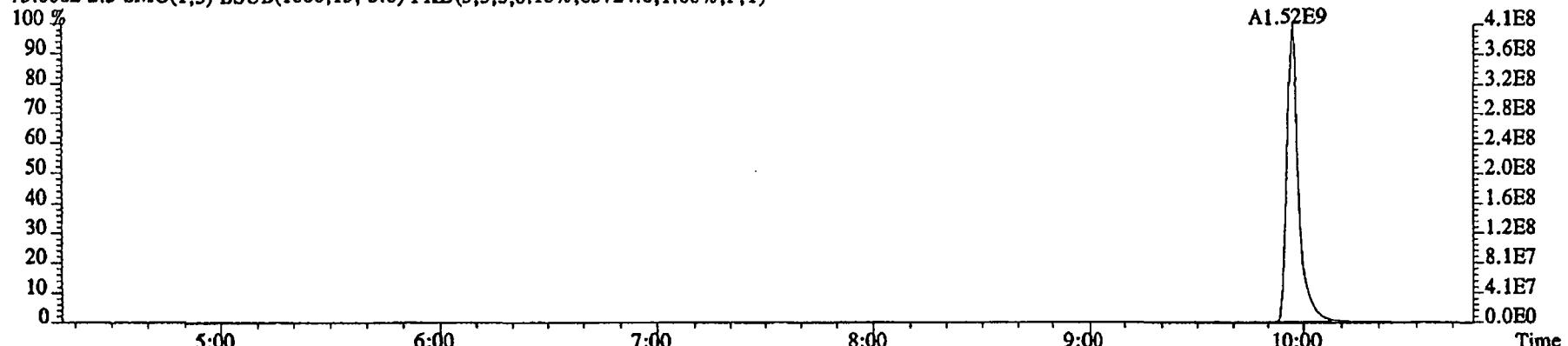
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 23:22:17 GC EI+ Voltage SIR 70SE  
Sample#5 Text:ST1203I :CS5 2350-68E Exp:NDMAVOA  
88.0524 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,13512.0,1.00%,F,T)



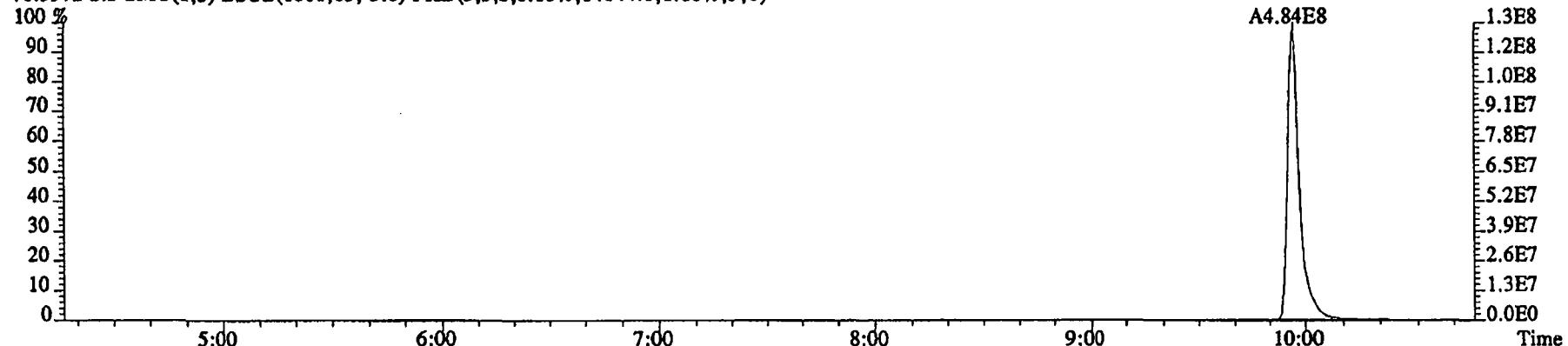
96.1026 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,6072.0,1.00%,F,T)



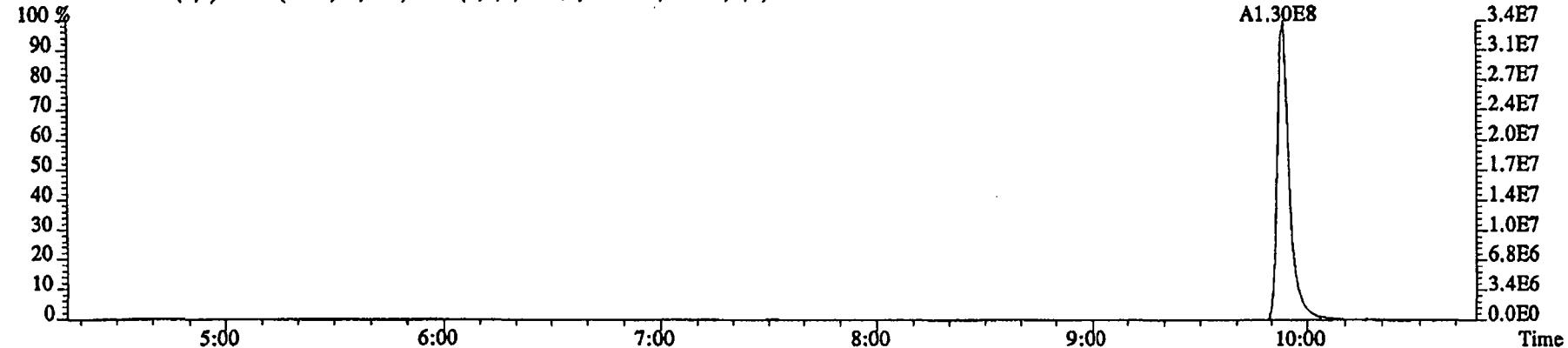
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 23:22:17 GC EI+ Voltage SIR 70SE  
 Sample#5 Text:ST1203I :CS5 2350-68E Exp:NDMAVOA  
 75.0002 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,83724.0,1.00%,F,T)



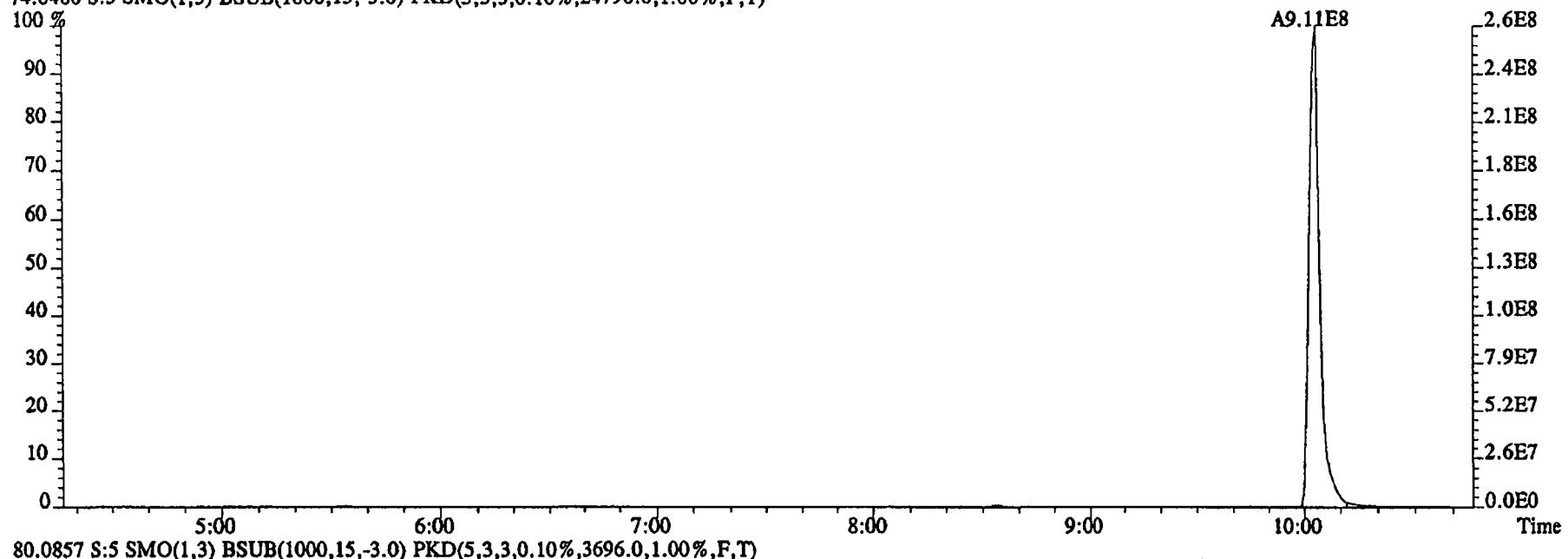
76.9972 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,14044.0,1.00%,F,T)



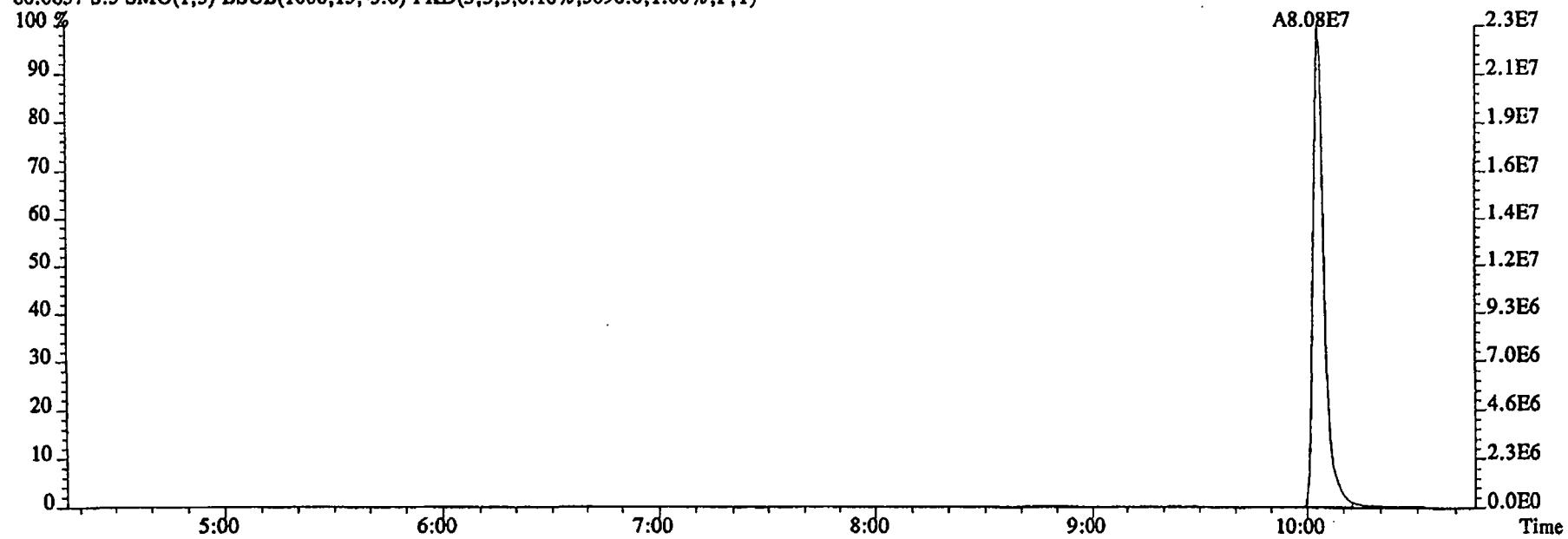
79.0253 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,10476.0,1.00%,F,T)



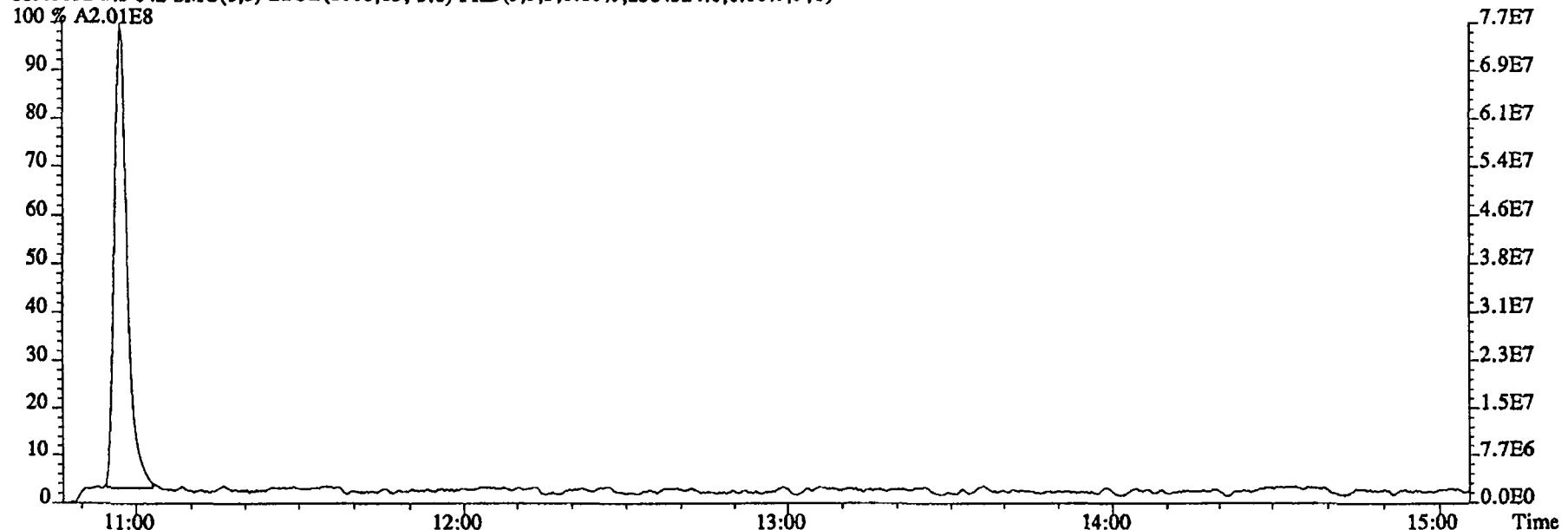
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 23:22:17 GC EI+ Voltage SIR 70SE  
Sample#5 Text:ST1203I :CSS 2350-68E Exp:NDMAVOA  
74.0480 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,24796.0,1.00%,F,T)



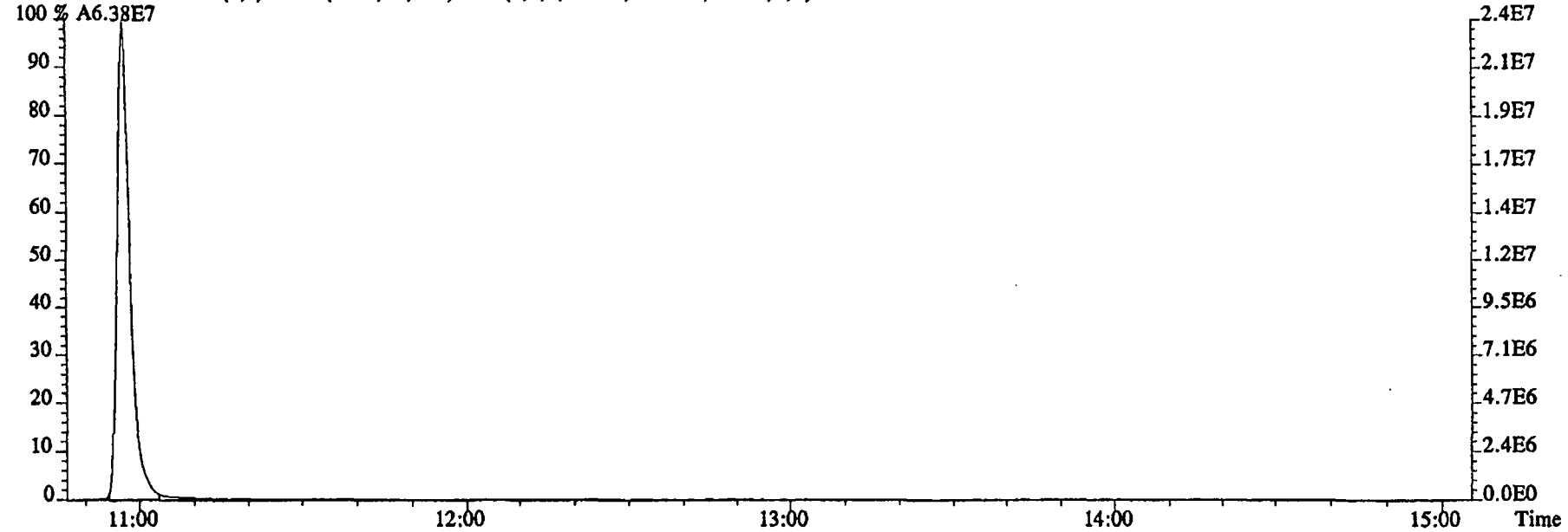
80.0857 S:5 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,3696.0,1.00%,F,T)



File:03DE04B5SP #1-603 Acq: 3-DEC-2004 23:22:17 GC EI+ Voltage SIR 70SE  
Sample#5 Text:ST1203I :CS5 2350-68E Exp:NDMAVOA  
113.0032 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,2584524.0,1.00%,F,T)



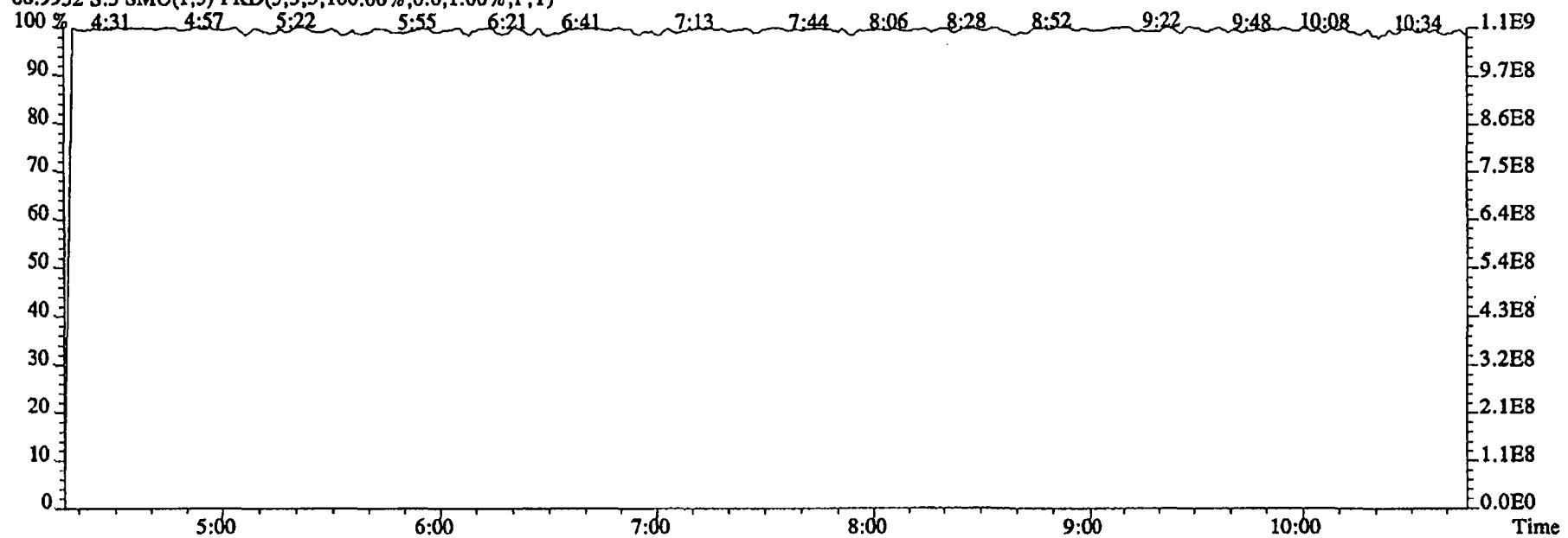
115.0003 S:5 F:2 SMO(1,3) BSUB(1000,15,-3.0) PKD(5,3,3,0.10%,22368.0,1.00%,F,T)  
100 % A6.38E7



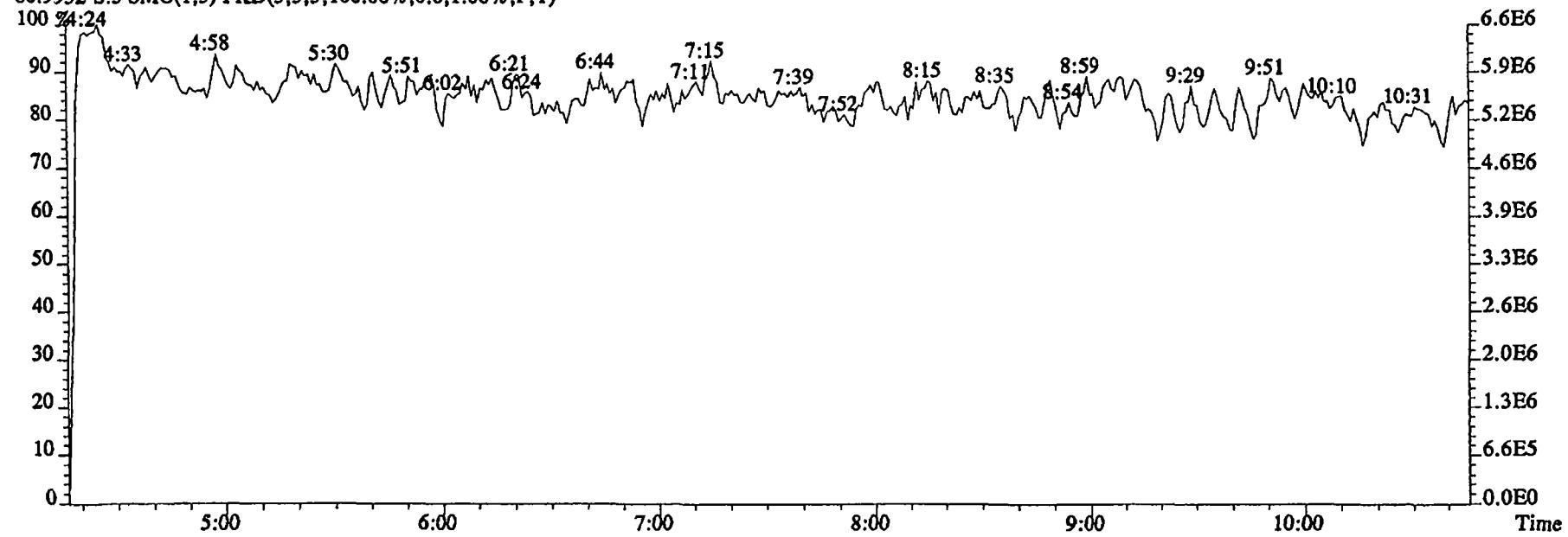
File:03DE04B5SP #1-480 Acq: 3-DEC-2004 23:22:17 GC EI + Voltage SIR 70SE

Sample#5 Text:ST1203I :CS5 2350-68E Exp:NDMAVOA

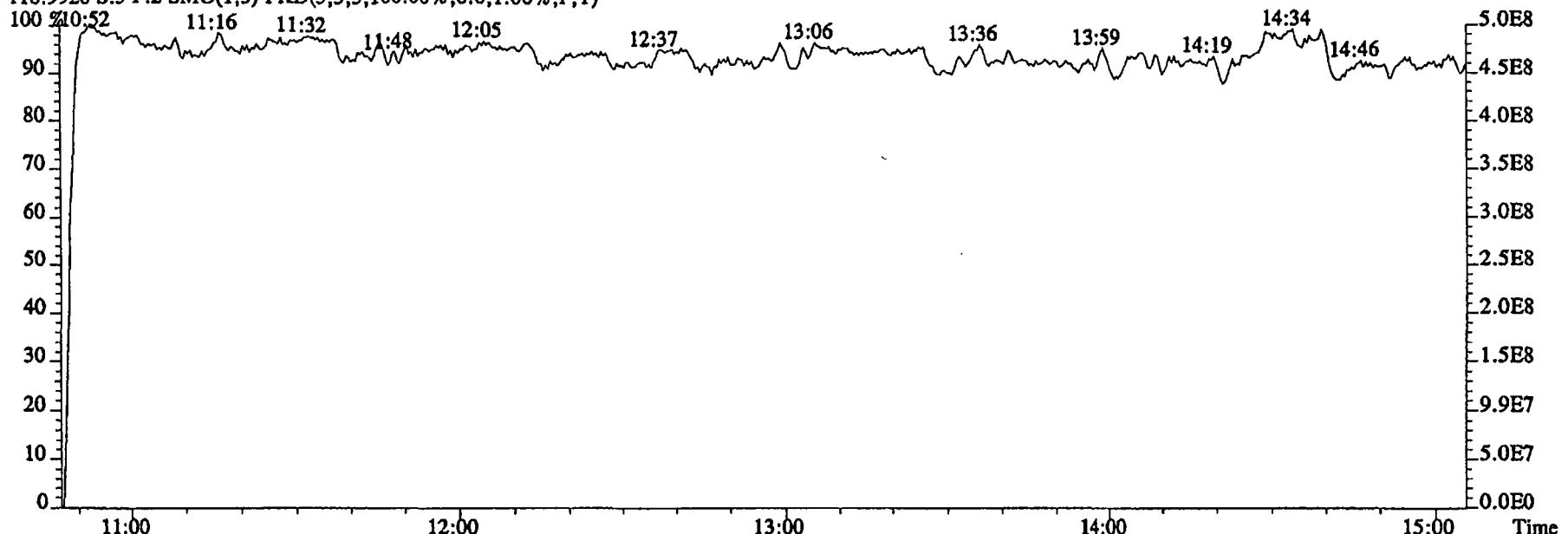
68.9952 S:5 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



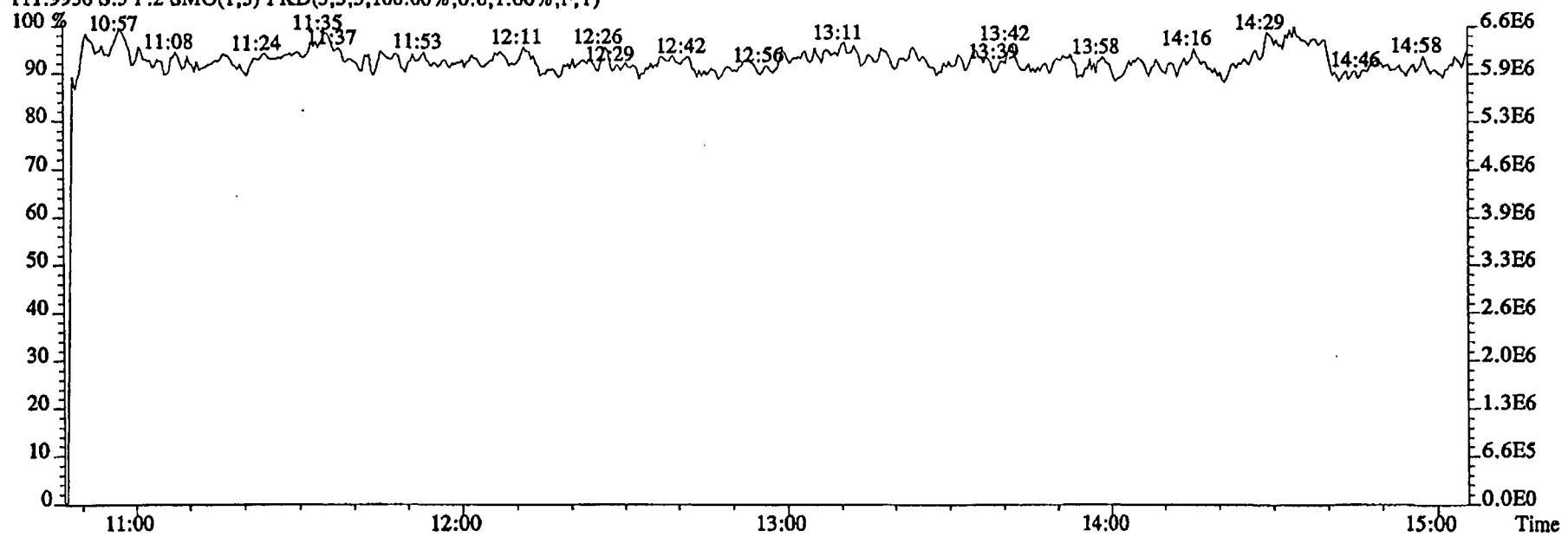
80.9952 S:5 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



File:03DE04B5SP #1-603 Acq: 3-DEC-2004 23:22:17 GC EI+ Voltage SIR 70SE  
 Sample#5 Text:ST1203I :CSS 2350-68E Exp:NDMAVOA  
 118.9920 S:5 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



111.9936 S:5 F:2 SMO(1,3) PKD(5,3,5,100.00%,0.0,1.00%,F,T)



**Sample Extraction/Preparation Log**  
**Copies and Checklists**

DCS is only required when a client requests one or a MS/SD is requested and limited sample size is available.

G4L010311

Please Circle Extraction Type if used:  
Soxhlet / Soxhtherm / DI TCLP

Ext. 1

Ext. 2

6A

Extraction time on: \_\_\_\_\_  
Extraction time off: \_\_\_\_\_

Semivolatiles by HRGC/HRMS (1625 Modified)

Sample #	Suff	Sugg. Sample Size	Actual Sample Size	613 Extraction	* Final Volume						
				Init/Date	Init/Date	Init/Date	Init/Date	Init/Date	Init/Date	Init/Date	Init/Date
MB		1000 mL	1000 mL	12/3/04							
LCS				↓							
DCS											
1			939.5		12-3-04 B0H						
2			979.3								
2	S		990.2								
2	D		917.4								
3			985.2								
4			933.2	↓	↓	↓					

All Samples  
I.S. ID  
Added Vol./Conc.

10ul 2350-65

By:

Witness:

NOA

Date:

12/3/04

LCS/DCS/MS/SD  
N.S. ID  
Added Vol./Conc.

100ul 2350-67

By:

Witness:

NOA

Date:

12/3/04

All Samples  
CRS/Surr ID  
Added Vol./Conc.

By:

Witness:

Date:

All Samples  
R.S. ID  
Added Vol./Conc.

200ul/2350-37

By:

Witness:

Date:

DEC 03 2004

Comments (Including Dilution at FV Information):

QC Lot ID: SAME  
Batch: 4338287

Extraction Solvents Used:  
DCM  
H2O

Solvent Lot #:

Associated Samples:

64L020335

64L020252

Batch:

SAME

Method:

SAME

\*Note: Final Volume column is used when the analyst who performed the addition of the Recovery Standard is different than the individual who concentrated the sample to the final volume. Also, if the final volume is different than the volume of Recovery Standard added, please denote in this column as well.

\*Most of sample was spilled after RSing. 20ul is left and in injection vial for analysis. B0H 12-3-04



**STL Sacramento**  
**Data Checklist**  
**High Resolution and Low Resolution Analyses**

S E V E R N
T R E N T
S E R V I C E S

Lot ID #: G4L010311 Method ID: Semivolatiles by HRGC/HRMS (1625 Modified)

Sample # 1,2,2MS,2SD - 4

(For Internal COC requests only)

Date Delivered to Inst.: \_\_\_\_\_ Delivered By: \_\_\_\_\_ Delivered To: \_\_\_\_\_

DB-5 SR-2331

DB-225

Data Analyst: CJ  
 Date initiated: 12-15-04  
 Reviewer: MAF  
 Date reviewed: 12-15-04

NA

QA/QC verification:

	<u>Initiated</u> <u>DB-5</u> <u>SR-2331</u>	<u>Reviewed</u> <u>DB-5</u> <u>SR-2331</u>	<u>Initiated</u> <u>DB-225</u> (High Res Only)	<u>Reviewed</u> <u>DB-225</u> (High Res Only)
-Daily standard package(s) present?	✓	✓	NA	NA
-Method Blank present?	✓	✓	NA	NA
-LCS/DCS copy present and meets native recovery criteria?	✓	✓	NA	NA
-Internal standard recoveries within limits?*	✓(1)	✓(1)	NA	NA
-Ion ratios within +15% of theoretical values?	NA	NA	NA	NA
-Other QC (Dup, MS, SD) within specs?**	✓	✓	NA	NA

Sample Analysis:

	<u>Initiated</u> <u>DB-5</u> <u>SR-2331</u>	<u>Reviewed</u> <u>DB-5</u> <u>SR-2331</u>	<u>Initiated</u> <u>DB-225</u> (High Res Only)	<u>Reviewed</u> <u>DB-225</u> (High Res Only)
-Correct sample aliquot used?	✓	✓	NA	NA
-All raw data present?	✓	✓	NA	NA
-Standard target DL's used? If RL's are used specify: <u>DL varies</u>	✓	✓	NA	NA
-DL's below TDL / LCL (please circle)? <u>all</u>	✓(1)	✓(1)	NA	NA
-All positives reported at levels greater than method blank DL's?	NA	NA	NA	NA
-Correct RRF's used for method?	✓	✓	NA	NA
-Internal standard amounts correct for method?	✓	✓	NA	NA
-Target analytes are not saturated?	✓	✓	NA	NA
-Dilution/splitting of extract taken into account?	NA	NA	NA	NA
-Have dilution calculations been verified?	NA	✓	NA	NA
-Has a manual calculation for the sequence(s) been verified?	✓	✓	NA	NA
-Are retention times (RT) correct?	✓	✓	NA	NA
-Manual integrations checked?	✓	✓	NA	NA

**Comments:** (Use other side if necessary)

\* Recovery limits:

NCASI 551:	40-120%***
Method 8290:	40-135%***
Method 1613:	25-150%***
Method 23:	40-130%*** (Cl4-Cl6), 25-130% (Cl7-8), 70-130% (surrogate)
CARB 428:	40-120%***
CARB 429:	50-150%***
PCBs:	25-150%***
DBD/DBF:	20-150%***
Method 8280:	40-120%***
DFLM01.0:	25-150%***
** .. . . .	** .. . . .

\*\*RPD limits:

50%
20%
50%
50%
50%
50%
50%
50%

RQC058

Severn Trent Laboratories, Inc.  
EXTRACTION BENCH WORKSHEETRun Date: 12/03/04  
Time: 11:28:16

<u>LEV</u>	<u>LEV</u>	<u>LEV</u>	<u>LEV</u>	<u>LEV</u>	Weights/Volumes	Expanded Deliverable
-	-	Blank	-	-	Spike & Surrogate Worksheet	- COC Completed
-	-	Check	-	-	Vial contains correct volume	- Bench Sheet Copied
-	-	MS/MSD	-	-	Labels, greenbars, worksheets	- Package Submitted to Analytical Group
-	-	-	-	-	computer batch: correct & all match	- Bench Sheet Copied per COC
-	-	-	-	-	Anomalies to Extraction Method	-

Extractionist: \_\_\_\_\_

\*\*\*\*\*  
\* QC BATCH: 4338287 \*  
\*\*\*\*\*PREP DATE: 12/03/04 8:00  
COMP DATE: 12/03/04 19:00

Concentrationist: \_\_\_\_\_

Reviewer/Date: \_\_\_\_\_ / 0/00/00

Semivolatiles by HRGC/HRMS (1625 Modified)  
LIQ/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT#, MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	EXTRACTION	SOLVENTS VOL EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
12/07/04	12/21/04	G4L010311-001 COMMENTS: GX3LR-1-AA	D	09	6A	WATER	939.5mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/07/04	12/21/04	G4L010311-002 COMMENTS: GX3LW-1-AC	D	09	6A	WATER	979.9mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/07/04	12/21/04	G4L010311-002 COMMENTS: GX3LW-1-AFS	D	09	6A	WATER	990.2mL 20.00uL	NA	NA	NA	DCM	120.0	.0	100UL 2350-67 10UL 2350-65
12/07/04	12/21/04	G4L010311-002 COMMENTS: GX3LW-1-AGD	D	09	6A	WATER	917.4mL 20.00uL	NA	NA	NA	DCM	120.0	.0	100UL 2350-67 10UL 2350-65
12/07/04	12/21/04	G4L010311-003 COMMENTS: GX3L0-1-AC	D	09	6A	WATER	985.2mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/07/04	12/21/04	G4L010311-004 COMMENTS: GX3L1-1-AC	D	09	6A	WATER	933.2mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/07/04	12/16/04	G4L020252-001 COMMENTS: GX5HC-1-AA		09	6A	WATER	962.2mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65

RQC058

Severn Trent Laboratories, Inc.  
EXTRACTION BENCH WORKSHEETRun Date: 12/03/04  
Time: 11:28:16

\*\*\*\*\*  
 \* QC BATCH: 4338287 \* PREP DATE: 12/03/04 8:00  
 \* \* COMP DATE: 12/03/04 19:00  
 \*\*\*\*\*

EXTR EXPR	ANL DUE	LOT#, MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH'S ADJ1	ADJ2	EXTRACTION VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
12/08/04	12/22/04	G4L020335-001 COMMENTS: GX6RX-1-AC	D	09	6A	WATER	988.2mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/08/04	12/22/04	G4L020335-002 COMMENTS: GX6FF-1-AC	D	09	6A	WATER	979.9mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/08/04	12/22/04	G4L020335-003 COMMENTS: GX6FQ-1-AA	D	09	6A	WATER	987.1mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/08/04	12/22/04	G4L020335-004 COMMENTS: GX6F1-1-AC	D	09	6A	WATER	971.3mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/07/04	0/00/00	G4L030000-287 COMMENTS: GX8C2-1-AAB		09	6A	WATER	1000mL 20.00uL	NA	NA	NA	DCM	120.0	.0	10UL 2350-65
12/07/04	0/00/00	G4L030000-287 COMMENTS: GX8C2-1-ACC		09	6A	WATER	1000mL 20.00uL	NA	NA	NA	DCM	120.0	.0	100UL 2350-67 10UL 2350-65

R = RUSH C = CLP  
 E = EPA 600 D = EXP.DEL)  
 M = CLIENT REQ MS/MSD  
 ♦

NUMBER OF WORK ORDERS IN BATCH: 13

# WATER, 410.4, Demand, Chemical Oxygen

CH2M Hill Inc

Client Sample ID: OC2-0W7-W-5-79

General Chemistry

Lot-Sample #...: G4L010311-002    Work Order #...: GX3LW    Matrix.....: WATER  
Date Sampled...: 11/30/04    Date Received...: 12/01/04

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Chemical Oxygen Demand (COD)	45.4	10.0	mg/L	MCAWW 410.4	12/02/04	4341231
					MDL.....: 3.1	

**CH2M Hill Inc**

**Client Sample ID: OC2-0W4B-W-0-80**

**General Chemistry**

**Lot-Sample #....: G4L010311-003      Work Order #....: GX3L0      Matrix.....: WATER  
Date Sampled....: 11/30/04      Date Received...: 12/01/04**

<b>PARAMETER</b>	<b>RESULT</b>	<b>RL</b>	<b>UNITS</b>	<b>METHOD</b>	<b>PREPARATION-</b>	<b>PREP</b>
					<b>ANALYSIS DATE</b>	<b>BATCH #</b>
Chemical Oxygen Demand (COD)	ND	10.0	mg/L	MCAWW 410.4	12/02/04	4341231
			MDL.....	3.1		

CH2M Hill Inc

Client Sample ID: OC2-0W4A-W-0-81

General Chemistry

Lot-Sample #....: G4L010311-004      Work Order #....: GX3L1      Matrix.....: WATER  
Date Sampled....: 11/30/04      Date Received...: 12/01/04

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u>	<u>PREP</u>
					<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Chemical Oxygen Demand (COD)	ND	10.0	mg/L	MCAWW 410.4	12/02/04	4341231
				MDL.....: 3.1		

# QC DATA ASSOCIATION SUMMARY

G4L010311

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
002	WATER	MCAWW 410.4		4341231	4341107
003	WATER	MCAWW 410.4		4341231	4341107
004	WATER	MCAWW 410.4		4341231	4341107

METHOD BLANK REPORT

General Chemistry

Client Lot #...: G4L010311

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
		LIMIT	UNITS	Work Order #: G0CVF1AA			
Chemical Oxygen Demand (COD)	ND	10.0	mg/L	MB Lot-Sample #: G4L060000-231	MCAWW 410.4	12/02/04	4341231

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: G4L010311

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION-ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Chemical Oxygen Demand (COD)	105	(85 - 115)	MCAWW 410.4	Work Order #: G0CVF1AC LCS Lot-Sample#: G4L060000-231 12/02/04	4341231

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #....: G4L010311

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Chemical Oxygen Demand (COD)	49.6	52.3	mg/L	105	MCAWW 410.4	12/02/04 4341231

Work Order #: G0CVF1AC LCS Lot-Sample#: G4L060000-231

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**General Chemistry**

**Client Lot #....:** G4L010311

**Date Sampled....:** 11/30/04

**Date Received..:** 12/01/04

**Matrix.....: WATER**

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>PREPARATION-</u>	<u>PREP</u>
	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>ANALYSIS DATE</u>	<u>BATCH #</u>
Chemical Oxygen Demand (COD)		WO#: GX3LW1AD-MS/GX3LW1AE-MSD	MS Lot-Sample #:	G4L010311-002
	91 (75 - 125)	0.69 (0-20)	MCAWW 410.4	12/02/04 4341231
	90		MCAWW 410.4	12/02/04 4341231

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: G4L010311

Matrix.....: WATER

Date Sampled...: 11/30/04

Date Received..: 12/01/04

PARAMETER	SAMPLE SPIKE	MEASRD	PERCNT			METHOD	PREPARATION-	PREP
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY		RPD	ANALYSIS DATE
Chemical Oxygen Demand (COD)			WO#:	GX3LW1AD-MS/GX3LW1AE-MSD	MS	Lot-Sample #:	G4L010311-002	
	45.4	50.0	90.9	mg/L	91	MCAWW	410.4	12/02/04
	45.4	50.0	90.3	mg/L	90	0.69 MCAWW	410.4	12/02/04

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# **Manual Colorimetric Analyses**

***Hexavalent Chromium  
COD  
Sulfide  
T-Phosphorous***

**STL Sacramento**

**LEVEL 1&2 REVIEW CHECKLIST  
GENERAL CHEMISTRY**

LAB NUMBERS: G4L010311

ANALYSIS: COD DATE: 12/6/04 ANALYST: PPrinc

**LEVEL 1 RUN REVIEW:**

1. Samples are properly preserved and verified
2. Run set-up meets standard criteria (Curve, ICV, ICB, REF...CCV,CCB..)
3. Calibration criteria met
4. Calibration verifications and second source reference are in control
5. Batch QC are in control (Blank, LCS, MSQC, LCS dup when necessary)
6. Calculations have been checked
7. QAS +/or QAPP was consulted and followed for client specifics
8. Standard Tracking # noted on benchsheet +/or runlog
9. Manual integration performed, documented and approved

YES	NO	NA
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/

**LEVEL 1 DATA REVIEW:**

1. Benchsheet complete
2. QAS +/or QAPP consulted and followed for client specifics for data entry
3. Data entered properly
4. Copy of prep sheet and prep checklist attached to run
5. Analyst observations, HTV's, Anomalies properly documented and attached to run.

/	/	/
/	/	/
/	/	/
/	/	/
/	/	/

Completed By & Date: FPrins 12/6/04

**LEVEL 2 REVIEW:**

1. Level 1 checklist complete and verified
2. Deviations, Anomalies, Holding times checked and approved
3. Reprep/Reanalysis documented and chemist notified
4. Client specific criteria met
5. Data entry checked and released in Quantims
6. Indication on benchsheet on review and release (dated & signed)
7. Manual integration reviewed, approved, and properly documented

X	/	/
/	/	X
/	/	X
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/

Completed By & Date: BRev 12/7/04

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

QA-159 NEK 7/00

RQC050

Severn Trent Laboratories, Inc.  
WET CHEM BATCHSHEETRun Date: 12/06/04  
Time: 10:19:07

STL Sacramento

## PRODUCTION FIGURES - WET CHEM

<u>TOTAL NUMBER</u>	<u>SAMPLE NUMBER</u>	<u>QC</u>	<u>RE-RUN MATRIX</u>	<u>RE-RUN OTHER</u>	<u>MISC NUMBER</u>	<u>TOTAL HOURS</u>	<u>EXPANDED DELIVERABLE</u>

METHOD: VO Demand, Chemical Oxygen (410.4)  
 QC BATCH #: 4341231 INITIALS: DATA ENTRY:  
 PREP DATE: 12/02/04 10:30 PREP \_\_\_\_\_ INITIALS \_\_\_\_\_  
 COMP DATE: 12/02/04 12:30 ANAL \_\_\_\_\_ DATE \_\_\_\_\_  
 USER: FRANCISF

*HS#4341107*

<u>Work Order</u>	<u>Lab Number</u>	<u>Structured Analysis</u>	<u>Exp. Del.</u>	<u>Analysis Date</u>	<u>Sample ID:</u>
GX3LW-1-AA	G-4L010311-002	XX I 21 VO 01	Y-D	_____	OC2-0W7-W-5-79
GX3LW-1-AE	G-4L010311-002-D	XX I 21 VO 01	Y-D	_____	OC2-0W7-W-5-79
GX3LW-1-AD	G-4L010311-002-S	XX I 21 VO 01	Y-D	_____	OC2-0W7-W-5-79
GX3L0-1-AA	G-4L010311-003	XX I 21 VO 01	Y-D	_____	OC2-0W4B-W-0-80
GX3L1-1-AA	G-4L010311-004	XX I 21 VO 01	Y-D	_____	OC2-0W4A-W-0-81
G0CVF-1-AA	G-4L060000-231-B	XX I 21 VO 01	_____	_____	INTRA-LAB BLANK
G0CVF-1-AC	G-4L060000-231-C	XX I 21 VO 01	_____	_____	INTRA-LAB CHECK

Control Limits

(75-125)

(75-125)

(85-115)

STL Sacramento

## CURVE CALCULATION BENCHSHEET

(SOP # SAC-WC-0040)

ANALYST REVIEWED BY BATCH NO.	FRANCISF <i>REV</i> 4341231	ANALYSIS DATE REVIEW DATE MS RUN NO.	12/02/04 12/7/04 4341107	METHOD NO. INSTRUMENT ID: ICV SOURCE:	EPA 410.4 SP2 2392-WC-59-4	FILE CCV SOURCE:	120204A 2392-WC-59-6
-------------------------------------	-----------------------------------	--	--------------------------------	---	----------------------------------	---------------------	-------------------------

COD (Low)									
Lab ID	Time	True Conc. mg/L	Background Absorbance	Sample Aliquot gram	Extract Volume mL	Dilution	Absorbance	Raw Result	
1 Std0	12:22	0					0.467	3.30529	Intercept = 1.5099E+02 Slope = -3.1624E+02  r = -0.999397
2 Std1	12:22	10					0.453	7.73269	
3 Std2	12:22	50					0.323	48.84429	
4 Std3	12:21	100					0.164	99.12694	
5 Std4	12:21	150					0	150.99080	
6									
7									Linear Not Forced Weighting = 1
8									Absorbance corrected for background absorbance
9									mg/L mg/kg Recovery Check
10 LCS/ICV:G4L010	12:23	49.6			2	2	1	0.312	52.32296 52.3230 105%
11 BLK/ICB:G4L010	12:23				2	2	1	0.47	2.35656 2.3566 < RL
12 GX3LW	12:23				2	2	1	0.334	45.36561 45.3656
13 GX3LW-S	12:24	50			2	2	1	0.19	90.90462 90.9046 91%
14 GX3LW-D	12:24	50			2	2	1	0.192	90.27213 90.2721 90%
15 GX3LD	12:24				2	2	1	0.473	1.40783 1.4078 < RL
16 GX3L1	12:25				2	2	1	0.476	0.45910 0.4591 < RL
17 CCV	12:25	50			2	2	1	0.318	50.42550 50.4255 101%
18 CCB	12:25				2	2	1	0.47	2.35656 2.3566 < RL
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									

PDE115

Severn Trent Laboratories, Inc.  
 Inorganics Batch Review  
 QC Batch 4341231

Date 12/06/2004  
 Time 9:26:58

Method Code: VO Demand, Chemical Oxygen (410.4)  
 Analyst: Filomena Francis

Work Order	Result	Units	LDL/Dil	Prep. - Anal.	Total Solids	PSRL Flag	R/R	Rounded Result	Output LDL	Dil.
GX3LW-1-AA	45.366	mg/L	10	12/02/04	.00	N		45.4	10.0	1.00
GX3L0-1-AA	1.4078	mg/L	10	12/02/04	.00	N		ND	10.0	1.00
GX3L1-1-AA	ND	mg/L	10	12/02/04	.00	N		ND	10.0	1.00
GOCVF-1-AA	ND	mg/L	10	12/02/04	.00			ND	10	1.00

Notes:

Check Standard

Work Order	Exception Code	True Spike	Measured Spike	Percent Recovered	Prep. - Anal.	Control Limits (85-115)	Dil.
GUCVF-1-AC	49.6		52.3230	105.48	12/02/04		1.00

Notes:

MS - MSD

Work Order	Exception Code	Measured Sample	True Spike	Measured SPIKE	Measured Dup.	Pct.	Recovered DUP	RPD	Prep. - Anal.	Dil.
GX3LW-1-AD		45.366	50	90.9046	90.2721	SPIKE 91.07	89.81	.69	12/02/04	1.00

Notes:

TEST	TOTAL #	SAMPLE #	QC #	PRODUCTION TOTALS			MATRIX #	OTHER #	MISC #	HOURS
	0	0	0				0	0	0	.0